



FACT SHEET

SAFEWORK NSW

TOWER CRANES – DUTIES OF PRINCIPAL CONTRACTOR

This document provides a summary of the duties of the principal contractor in relation to a tower crane at their site.

Principal contractors have multiple duties under the WHS Act. In relation to tower cranes the work health and safety legislation essentially imposes duties on them to ensure that the tower crane is, so far as is reasonably practicable, without risks to the health and safety of any person. This includes ensuring the tower crane is correctly installed, commissioned, maintained, operated, dismantled and removed from site.

While principal contractors will usually contract others to carry out many of the specific tasks they still retain the overall duty. Under Section 272 of the WHS Act, any agreement or contract will become void if it purports to exclude, limit, modify or transfer any duties of the principal contractor owed under the Act.

Once the crane is on site the principal contractor needs to incorporate scheduled maintenance of the tower crane into the build program. The maintenance should be arranged in consultation with the maintenance provider.

To demonstrate the principal contractor's compliance with their duties the following documents should be readily available on site for verification by the principal contractor, HSR, SafeWork inspector, etc. This is not an exhaustive list and additional documents may be required depending on the type of crane and site specific requirements.

1. Documentation for pre-operation activities;
 - a. Details of design registration (if applicable)
 - b. Certificate of item registration
 - c. Pre-erection inspection reports, including details of non-destructive testing
 - d. Safe work method statements for tower crane erection and climbing
 - e. Major inspections (if applicable)
 - f. Crane standing design, including engineers and geotechnical reports/ drawings in relation to footings, foundations and anchorages (as applicable)
 - g. Engineers design for crane ties and additional signage (if applicable)
 - h. Commissioning report
 - i. Records of lifting gear inspections
 - j. Current operators manual
 - k. Copies of crane crew high risk work licenses and induction which should include trial operation of the crane on site.
2. Ongoing maintenance and modification documentation;
 - l. Daily inspection checklists
 - m. Routine maintenance reports
 - n. Breakdown maintenance, including repairs
 - o. Crane climbs and tie installations
 - p. Records of periodic inspections
 - q. Reviews of safe work method statements and records of revisions
 - r. Records of any modifications and relevant approvals (as required).

DESIGN AND ITEM REGISTRATION

In NSW, tower cranes including self-erecting tower cranes that were designed from 01 September 2001 require registration of the design.

All tower cranes including self-erecting tower cranes require item registration. Refer attached link to SafeWork NSW website for further information; [Plant Registration information.](#)

OPERATORS MANUAL

An operator's manual applicable to the tower crane in service should be readily available to the tower crane operator. The operator's manual serves as a backup to the operator familiarisation training on the specific requirements and functions of the tower crane. It should also include the crane maintenance requirements.

PRE-ERECTION INSPECTION AND TESTING

Pre-erection inspection and testing of the tower crane components is to be performed by competent persons as per manufacturer's requirements or where these do not exist refer Australian Standard AS 2550.4. Except for new cranes, this should include non-destructive testing of critical areas such as vital welds, connectors, slew ring bolts, slew ring attachment.

Records of inspections should contain sufficient detail to identify the work performed.

ENGINEERS AND GEOTECHNICAL REPORTS

An engineers report should be provided approving suitability of the crane foundation/standing as per design. The crane foundation drawings should reference a site specific Geotechnical report where the crane is supported by the ground (soil or rock).

Where crane ties are used, engineers' reports should also be provided approving the design of the ties and the suitability of the support structure.

NON-DESTRUCTIVE INSPECTION REPORTS

Non-destructive inspection of specific components is required as part of the pre-erection inspection.

Repairs or modifications may also require non-destructive inspection as advised by the manufacturer or a competent person. Details of all inspection and testing shall be documented.

LIFTING GEAR INSPECTION

Records of lifting gear testing and inspection should include certification for the crane hook, and hoist rope, and inspection records for slings and other lifting gear. Provisions should be made for appropriate storage of lifting gear.

COMMISSIONING REPORT

A commissioning report should be provided by a competent person. The report should detail the inspections and tests undertaken to ensure the tower crane has been erected as per the manufacturer's requirements and all required systems and safety devices have been tested as satisfactory.

MAINTENANCE AND INSPECTION OF PLANT

Maintenance and inspection of the tower crane must be carried out by competent persons in accordance with the manufacturer's recommendations. If there are no manufacturer's recommendations, then maintenance should be performed in accordance with recommendations of a competent person or Australian Standard AS2550.4.

CRANE MODIFICATIONS

Any modification to a tower crane not in accordance with the manufacturer's specifications requires compliance or certification, such as an engineers' certificate approving the modification. For example, adding signage outside the manufacturer's specifications requires compliance and certification paperwork detailing that the crane can withstand the additional weight, wind loadings and/or electrical draw.

For further information, refer to:

- Australian Standard AS 2550.1-2011 Cranes, hoists and winches-safe use-general requirements
- Australian Standard AS 2550.4-2004 Cranes, hoists and winches – safe use – tower cranes
- Australian Standard AS 1418.1-2002/Amdt 1-2004 Cranes, hoists and winches general requirements
- Australian Standard AS1418 Part 4 Cranes, hoists and winches – tower cranes
- SafeWork Australia – Guide to Tower Cranes
- Tower cranes – critical faults
- Tower cranes – key messages to Industry
- Work Health and Safety Act 2011 – Sections 18 to 26
- Work Health and Safety Act 2011 – Sections 27 to 29

Disclaimer

This publication may contain information about the regulation and enforcement of work health and safety in NSW. It may include some of your obligations under some of the legislation that SafeWork NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation. Information on the latest laws can be checked by visiting the NSW legislation website www.legislation.nsw.gov.au

This publication does not represent a comprehensive statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

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