



Checklist and information for Bridge and overhead cranes

Introduction

In 2010 WorkSafe conducted an inspection campaign of bridge and gantry cranes aimed at improving safety and health issues.

The following newsletter was developed to identify safety issues and to assist workplaces in meeting the requirements of the OSH legislation.

The checklists used by WorkSafe inspectors during this campaign are included in this newsletter. Please use the checklists to ensure your workplace meets the occupation safety and health legislation.

If an inspector visited your work place what issues would be of interest?

- Whether cranes have been design registered if required;
- Whether any alterations have been made to the cranes;
- That maintenance and inspection programs are in use;
- The general condition of the cranes;
- Access for maintenance – that ladders and other methods of access are safe;
- That adequate records are being kept of maintenance, inspection, testing and so on;
- That crane operators and doggers are trained and licenced if required; and
- Lifting gear is in good working order, including chains, slings and attachments.

What is a RISK ASSESSMENT?

The occupational safety and health laws require risk assessments to be carried out.

A risk assessment is the process of determining whether there is a risk associated with an identified hazard, that is, whether there is any likelihood of injury or harm. The process should include consultation with people involved in the task, as well as consideration of the, experience and training of the operator, individual tasks to be performed and the length of time the operator is exposed to the identified hazards.

How do I use these checklists?

1. Use the checklists in this newsletter to inspect your workplace. You may see other hazards as you are going through – add them to the checklist.
2. Anything that you have ticked 'No' or added to the list needs to be fixed. So, look at each hazard using the table below to prioritise identified hazards.

Risk rating table – for working out level of risk Use the vertical and horizontal columns to consider both the likelihood of injury or harm to health and the consequences to work out the level of risk

Likelihood of injury or harm to health	Consequences of any injuries or harm to health			
	Insignificant eg no injuries	Moderate eg first aid	Major eg extensive injuries	Catastrophic eg death
Very likely	High	Extreme	Extreme	Extreme
Likely	Moderate	High	Extreme	Extreme
Moderate	Low	High	Extreme	Extreme
Unlikely	Low	Moderate	High	Extreme
Highly unlikely (rare)	Low	Moderate	High	High

Risk assessment is a 'best estimate' on the basis of available information. It is important the responsible person undertaking a risk assessment has the necessary information, knowledge and experience of the work environment and work process, or such a person is involved.

3. If the hazard falls into 'high' or 'extreme', based on your view of how likely it is someone will get hurt and what level of injury could happen, then you need to fix it straight away.

If it is lower down in the table – moderate or low – then plan when you will fix it.

Remember hazards have to be controlled – you can't ignore them.

Frequently asked questions

Are your cranes inspected, maintained?

Where there is a crane at a workplace, the person in charge of that workplace, must ensure that the crane is maintained, inspected and operated:

- in accordance with written instructions developed at the time of design or manufacture by the person who designed or manufactured the elevating work platform; or
- if it's not practical for the person in charge of the workplace to get those instructions, then in accordance with any written instructions approved by the Commissioner; or
- if it's not practical for that person to get either the manufacturer or designer's instructions or written instructions approved by the Commissioner, in accordance with the relevant Australian Standard.

How can I show that I have maintained the crane properly?

You are required under the *Occupational Safety and Health Regulations 1996* to keep records of maintenance, inspection, commissioning or testing of plant and of any alteration to that plant. Keeping of good records is a very effective way of demonstrating that you have complied with your duties under the Act in terms of maintaining a workplace free of hazards.

What happens if I can't find the instructions?

As a first step you should contact the manufacturer or supplier of the equipment to see if they can provide you with the instructions.

Does the manufacturer/supplier have to provide me with the instructions?

The person who supplied you the plant (whether it is a commercial or private sale) has a duty under the *Occupational Safety and Health Regulations 1996* to provide you, (the person receiving the plant) with all available information required to enable the plant to be used safely and, where available, with any records kept by a previous owner of the plant.

Regular OSH updates

Do you want receive regular emails from WorkSafe to keep you up to date with changes to occupational safety and health in Western Australia, then go to www.worksafe.wa.gov.au → services → mailing lists

ThinkSafe Small Business Assistance Program

If you are a small business owner or manager and want to make your workplace safe, the ThinkSafe Small Business Assistance Program can help you. The ThinkSafe Small Business Assistance Program offers an occupational safety and health audit of your business which is:

- free (up to three hours assistance);
- easy to obtain;
- provided by an independent and qualified OSH consultant; and
- is a simple process with clear and immediate benefits to your business

To apply download and complete the online form from www.worksafe.wa.gov.au or telephone 1800 429 273

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Checklists

design registration safety checklist			
check	yes	no	n/a
The bridge crane design is registered as its capacity is greater than 10 tonnes			
The gantry crane design is registered as its capacity is greater than 5 tonnes			
Does the crane handle molten metal or dangerous goods			
Has the crane been modified or an additional crane placed on the same runways.			
The design registration number is displayed on crane			

maintenance and inspection safety checklist			
check	yes	no	n/a
The crane is maintained and inspected in accordance with written instructions developed at the time of the design by the person who designed or manufactured the crane.			
Where it is not practical to obtain those instructions then the crane is maintained and inspected in accordance with instructions approved by the Commissioner			
Where it is not practical to obtain either of those instructions then the crane is maintained and inspected in accordance with the relevant Australian Standard AS2550.1 & AS2550.3 [Reg 4.54(4)(c)]			
Records show the crane is serviced quarterly as per AS2550.1			
Records show the crane is inspected annually by a competent person as per AS2550.1			
The crane has undergone a major mechanical inspection where the crane has been in service more than 10 years as per AS2550.1			

design registration safety checklist cont...			
check	yes	no	n/a
The crane has undergone a major mechanical inspection where the crane has been in service more than 20 years as per AS2550.1			
Where the crane has been in service for more than 25 years, the crane has undergone an assessment of suitability for continued use as per AS2550.1			
Where the crane has been in service for more than 25 years, the crane has undergone a major structural and mechanical inspection as per AS2550.1			
Records of any maintenance, inspection, test, repair or commissioning is made and kept			
There is a means of access to the working parts for the purpose of maintenance & inspection (may be EWP or fixed ladder)			
Where access is in the form of a vertical ladder a fall arrest system is available			

dogger rigger safety checklist			
check	yes	no	n/a
Operator has been trained in the safe operation of the crane			
Where the crane is operated from a cabin or the crane has a fourth powered movement the operator holds a high risk licence (CB)			
The person/s who slings the load holds a high risk licence where judgement is exercised (DG)			
Where multi crane hoisting is carried out the person supervising the lift holds a high risk licence for rigging intermediate or advanced class (RI or RA).			
Certificate of Competency has been converted to a High Risk Licence			
The employer does not direct or allow a person to carry out high risk work without a licence			

record of information records must be made and kept			
check	yes	no	n/a
Quarterly maintenance records (servicing)			
Annual inspection by competent person			
Ten year major mechanical (where applicable)			
Twenty five year major structural (where applicable)			
Operators Manual (in English)			



condition of crane safety checklist			
check	yes	no	n/a
Pendant control labels are legible			
Pendant cable & cable support condition			
Emergency stop on pendant is functional			
Lifting hooks (general condition, safety latches etc)			
Hoist ropes (condition)			
Main isolator is identified and is of a type able to be locked in the off position			
Upper limit functional			
Lower limit functional			
Maximum rated capacity (SWL) clearly stated on bridge beam			
Compass directions displayed on beam and correlate with pendant functions			
Conductor warning signs			
Oil leaks			
Structural deformity			
Load weight indicators			
Gantry cranes fitted with travel alarm			
Outdoor gantry crane is fitted with travel locks Travel locks are engaged when gantry crane is not in use.			

lifting gear damage, wear, tags etc			
check	yes	no	n/a
An inspection regime is in place for all lifting gear including Chains, slings, shackles and lifting attachments			
Chains and slings not in use are properly stored			
Lifting chains have a maximum rated capacity tag fitted (otherwise known as Safe Working Load or Working Load Limit)			

