



Standard Operating Procedure

Procedure Name:	Slew Crane Operations – Erection and dismantling		
Author:	Steve Smallman		
Approved By:	Albie Wheeler		
Version	1.0	With Effect from	1/1/12
Review Date	1/1/13	Document Number	SOP 11
Risk Assessment	Name	RA SOP 11 Erection and dismantling of slew cranes	
	Date	6/8/12	

1. Aim of procedure

To identify and formalise the risks and control processes involved in erecting and dismantling various road mobile cranes.

2. Scope of application

This procedure applies to all Wheeler Cranes personnel operating slew cranes at any location at any time.

3. References

AS 2550.5

Operators Manual for individual cranes

Code of Practice: Moving Plant on construction sites

4. Pre-requisites


Crane Drivers undertaking this work must hold:

- A National Certificate of Competency/High Risk Work Licence for the size and type of crane used
- A vehicle driver's licence of a suitable class for the crane used.
- A Wheeler Cranes Verification of Competency as a crane driver

Dogmen undertaking this work must hold a National Certificate of Competency/High Risk Work Licence as a dogman, and where supplied by Wheeler Cranes a Wheeler Cranes Verification of Competency.

Crane Drivers and dogman must be able to demonstrate familiarity with the control mechanisms and operations of the individual crane types.

Crane drivers and dogmen must have access to the operators manual for the crane.


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5. Procedure

The erection of a crane in a safe manner, in an appropriate location is fundamental to the proper operation of the crane, and the efficient operation of the lifts.

Select crane site

- 5.1. Assess the load(s) to be lifted and calculate the appropriate working radius of the crane. This will determine a primary set of parameters for the siting of the crane, i.e how far from the load the crane may be set up.
- 5.2. Assess the area for the following hazards:
 - 5.2.1. Access to and from the site, including:
 - 5.2.1.1. Bogging
 - 5.2.1.2. Collision with personnel during movement
 - 5.2.1.3. Collision with structures during movement
 - 5.2.1.4. Collision with temporary bracing put in place either before entry or while the crane is on site
 - 5.2.1.5. Collision with overhead structures
 - 5.2.1.6. Contact with overhead power cables.
 - 5.2.1.7. Damage to footpaths and driveways
 - 5.2.1.8. Presence of underground services
 - 5.2.2. Adequate room to extend outriggers and for tail swing of the crane
 - 5.2.3. Access for transport vehicles and where they will park. This will determine the load path and slew path of the boom.
 - 5.2.4. Presence of personnel within the shadow of the load. Ensure that no person will be working underneath the slew path of the load (shadow of the load). Where necessary, arrange for barriers/lookouts to be put in place.
 - 5.2.5. Contact with power lines during slew operations. Ensure that the boom, load and rope will remain the minimum safe clearance distance from power lines both horizontally and vertically. Where necessary ensure that close proximity trained personnel are used (both as a driver and dedicated spotter)
 - 5.2.6. Ground defects including trenches, suspended slabs, underground services and where appropriate the bearing capacity of the soils. Where necessary seek geotechnical/engineering advice.
- 5.3. Discuss the location and any issues arising with the client representative on site.
- 5.4. Determine where counterweights will be fitted to crane (if not fixed in place already). If necessary attach outriggers (step 9) at this time and move on site with counterweights in position.
- 5.5. Move to the selected location, obey any speed limits or traffic plan in place. Where any reversing is to be done, either of the crane or a support vehicle, a guide must be provided.

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Erection of crane

- 5.6. Set outriggers to desired extension. Maintain visual contact with outriggers to ensure that personnel are clear of outriggers before movement and not crushed between outriggers and fixed structures. Establish an exclusion zone to ensure that plant does not collide with outriggers when extended.
- 5.7. Ensure outrigger feet are attached in accordance with manufacturer's specifications.
- 5.8. Create an outrigger pad. Use either pre- sized and approved steel pads or timbers complying with the Australian Standard. Timbers must be:
 - 5.8.1. Not less than 150mm wide
 - 5.8.2. Not less than 75mm thick
 - 5.8.3. Of hardwood
 - 5.8.4. Sized for appropriate manual handling
 - 5.8.5. Handled with caution to prevent crush injuries. Persons handling timbers must wear gloves and must not place fingers between timbers when stacking them
 - 5.8.6. Stacked so that the topmost layer is at 90° to the outrigger
 - 5.8.7. Stacked so that each layer is at 90° to the preceding layer
 - 5.8.8. Stacked so that the bottom layer of the stack is close layered
- 5.9. Once positioned, load counterweights onto crane in accordance with manufacturer's instructions. In doing so, ensure that:
 - 5.9.1. Outriggers are in the appropriate position.
 - 5.9.2. Slings used are in good condition and affixed correctly.
 - 5.9.3. Personnel access the counterweights safely, including the use of temporary work platforms, fall barriers or harnesses as necessary
 - 5.9.4. Counterweights are positioned correctly on the crane.
 - 5.9.5. Personnel use gloves when handling counterweights and do not place hands between counterweights and fixed surfaces.
 - 5.9.6. If necessary, the boom/jib of the crane shall be moved lifted/extended/lowered/retracted to the appropriate position to enable counterweights to be fitted without affecting the stability of the crane.
- 5.10. Fly and other additional equipment must be fitted in accordance with the manufacturer's specifications.
- 5.11. Load limiting and indicating devices are to be tested prior to operation.

Dismantling of crane

- 5.12. Dismantling is the reverse of the erection procedure; however, load limiting devices need not be tested.
- 5.13. Any damage to the crane must be noted and communicated to the office so that repairs may be arranged.



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- 5.14. All equipment must be returned and correctly stowed and secured prior to departure from site.
- 5.15. Crane drivers and drivers of support vehicles must ensure that their vehicles are in a fit and proper condition to be driven on public roads prior to departure from site. See SOP 06 Road travel for cranes and vehicles.

6. Approval

Albie Wheeler
Managing Director
13/9/12



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7. Acknowledgement

Name	Signature	Name	Signature