	<h1 style="margin: 0;">Standard Operating Procedure</h1>		
	Procedure Name:	Operation of slew cranes	
	Author:	Steve Smallman	
	Approved By:	Albie Wheeler	
Version	1.0	With Effect from	1/1/12
Review Date	1/1/13	Document Number	SOP 13
Risk Assessment	Name	RA SOP 13 Slew crane operations	
	Date	6/8/12	

1. Aim of procedure

To identify and formalise the risks and control processes involved in operation of slew cranes

2. Scope of application

This procedure applies to all personnel operating slew cranes on behalf of Wheeler Cranes.

3. References

AS 2550.5

SOP 04 Daily checks slew crane

SOP 06 Road travel for cranes

SOP 10 Inspection of lifting equipment

SOP 11 Erection and dismantling of slew cranes

Code of Practice: Work near Overhead Power Lines


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 drivers 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 must have access to the operating manual for the crane.

	<h1 style="color: blue;">Standard Operating Procedure</h1>		
	Procedure Name:	Operation of slew cranes	
	Author:	Steve Smallman	
	Approved By:	Albie Wheeler	
Version	1.0	With Effect from	1/1/12
Review Date	1/1/13	Document Number	SOP 13
Risk Assessment	Name	RA SOP 13 Slew crane operations	
	Date	6/8/12	

5. Procedure

Wheeler Cranes personnel will:

1. Undertake daily checks of the crane operations as listed in the operators manual and SOP 04. This includes checking load indicators in accordance with the operations manual.
2. Be familiar with the location and operation of emergency equipment including isolators and fire fighting equipment.
3. Travel to site in accordance with Australian Road Rules, the NSW Heavy Vehicle Drivers Handbook and SOP 06.
4. Arrive on site and communicate with the client representatives regarding work to be performed.
5. Erect the crane in an appropriate location as per SOP 11.
6. Undertake a review of the lifts required and calculate the maximum allowable lifts at the operating radius used, alternatively the maximum radius to be used for the loads to be lifted. These calculations will be documented on the Site Risk Assessment.
7. Confer and determine the rigging required and its layout.
8. Select and inspect the rigging to be used for the task in accordance with SOP 10.
9. Test crane operation in accordance with the manufacturers operating manual.
10. Install and verify slew limiters and any physical or visual guides for slew limit.
11. Confer with client representatives regarding the establishment of exclusions zones. No operations will be undertaken that place the load over any persons.
12. Personnel are not to approach the crane during operations without the express approval of the crane operator. Persons can be struck by the load, boom, counterweights or be trapped and crushed by moving portions of the crane.
13. Determine the appropriate communications method, check and ensure that the chosen methods are viable given the location and operations on the day.
14. Ensure appropriate clearance from overhead conductors, bus bars and electrical distribution systems. Where clearance distances are encroached, the provisions of the Workcover Code of Practice: Work near Overhead Power Lines.
15. **Where a boom or load comes into contact with an aerial conductor:**
 - a. Operator is to remain in cabin
 - b. No person is to approach the crane, outriggers or load.
 - c. Establish barricades to prevent any approach
 - d. Contact the network distributor to arrange de-energisation of the lines.
 - e. If it is absolutely necessary to leave the crane, operators are to JUMP clear of the crane. Do not touch the crane and the ground at the same time.
16. When first taking the weight of any lift, the load will be test lifted, i.e lifted clear of the support, and the rigging and load inspected prior to the lift continuing.



Standard Operating Procedure

Procedure Name:	Operation of slew cranes		
Author:	Steve Smallman		
Approved By:	Albie Wheeler		
Version	1.0	With Effect from	1/1/12
Review Date	1/1/13	Document Number	SOP 13
Risk Assessment	Name	RA SOP 13 Slew crane operations	
	Date	6/8/12	

17. Operators are to be aware of boom flex during operation. As load comes onto the boom, the boom will bend downwards, effectively increasing the working radius of the crane. Other factors that can increase working radius include chassis twist, outrigger settling, tyre deflection and stretch in the pendants.
18. All lifts shall be undertaken within the Australian Standard rated capacity chart.
19. During telescoping (in or out) the winch will be let out or retrieved to ensure the load remains at an appropriate height and does not come into contact with the ground or structures.
20. Should any pick and carry operations be undertaken with a slew crane (the crane has an on-rubber chart and is certified by the manufacturer for pick and carry operations);
 - a. changes in speed and/or direction shall be undertaken gradually and measures taken to eliminate load swing. This can include control of speed/direction change and use of tag lines.
 - b. Surfaces shall be inspected and prepared to ensure a firm and level travel path for the crane. Where necessary potholes are to be filled, humps levelled and mats placed over boggy/soft areas.
 - c. Where slopes must be negotiated:
 - i. The angle of slope (front/rear and side) is to be assessed for impact on working radius.
 - ii. The load should be carried on the uphill side of the crane, regardless of direction of travel
 - iii. The slew lock should be engaged. Slewing should be avoided during movement, and kept to a minimum at other times. Slewing should only be undertaken to ensure the load remains up hill.
 - iv. Placement of loads should be undertaken on the up hill side of the crane only. Care should be taken in release of load to ensure the crane and boom remain stable.
 - v. Travel should be undertaken with the load carried as close to the ground as possible.
21. Booms are not to be lowered by gravity
22. Manual extensions are not to be retracted by jibbing up until it retracts under its own weight.
23. Any defect in crane operation is to be reported and where possible rectified.
24. Crane Operations shall:
 - a. Be undertaken within the rated capacity of the crane.
 - b. Be undertaken smoothly, avoiding sudden stops or jerks
 - c. Not be undertaken when the hook or load is out of sight of the driver unless under specific direction of the dogman.



Standard Operating Procedure

Procedure Name:	Operation of slew cranes		
Author:	Steve Smallman		
Approved By:	Albie Wheeler		
Version	1.0	With Effect from	1/1/12
Review Date	1/1/13	Document Number	SOP 13
Risk Assessment	Name	RA SOP 13 Slew crane operations	
	Date	6/8/12	

- d. Be undertaken at an appropriate height so that the hook or load does not strike any person or object.
 - e. Be undertaken with hoisting in the vertical only. Loads shall not be dragged with a crane.
 - f. Out of vertical movement of the load will be undertaken only when the load is freely suspended beneath the crane.
 - g. Avoid engaging slew limiters unnecessarily. Slew limiters/end stops are last ditch reminders to ensure you do not hit anything, not part of the normal operations of the crane.
 - h. Be undertaken in accordance with the direction of the dogman and the dogman's instructions will be complied with unless they will create a risk to safety.
 - i. Where loads are being moved in the vicinity of persons, all persons engaged in the operation or in the vicinity will:
 - i. Be aware of the location of the load and its placement point
 - ii. Remain clear of the load at all times
 - iii. Not be positioned between the load and any fixed object
 - iv. Use appropriate tools to assist in locating the load and not place hands in a position where they can be crushed.
 - v. Make the crane operator aware of the presence of personnel in the vicinity of the crane.
25. Avoid landing loads with slack rope.
26. At no time will any person be suspended by a crane in other than an approved lifting device (manbox) in accordance with SOP 14.
27. Operate with due regard to weather factors:
- a. Wind – Wind loads will be assessed in accordance with the manufacturers operating parameters for the cranes. If available, storm brakes will be used.
 - b. Visibility – Where visibility is reduced and no other communication system is available, or the weather impacts on the communication method, operations will cease.
 - c. Rain – Rain can affect the operation of clutches and brakes and can affect other systems on the crane. Rain also can compromise the safety or personnel on site. When restarting operations after rain, friction brakes and clutches are to be thoroughly tested.
 - d. Lightning – Cranes should not be operated during lightning storms. Where possible booms should be lowered and retracted to minimise the lightning rod affect.
28. Multiple crane lifts shall be done in accordance with this SOP and SOP 15 Multi-crane lifts



Standard Operating Procedure

Procedure Name:	Operation of slew cranes		
Author:	Steve Smallman		
Approved By:	Albie Wheeler		
Version	1.0	With Effect from	1/1/12
Review Date	1/1/13	Document Number	SOP 13
Risk Assessment	Name	RA SOP 13 Slew crane operations	
	Date	6/8/12	

6. Approval

Albie Wheeler
Managing Director
13/9/12

