

## CLERMONT CRANE HIRE – JOB SAFETY ANALYSIS

<b>TASK TITLE:</b>  .....  .....  .....	<b>WORK SITE:</b>  .....  .....  .....	<b>LOCATION:</b>  .....  .....  .....
<b>PPE REQUIRED</b>  .....  .....  .....	<b>PERMITS REQUIRED</b>  .....  .....  .....	<b>Other:</b>  Supervisors Phone Number: _____ Emergency Site Phone Number: _____ Emergency Radio Channel: _____

### SUPERVISOR / CUSTOMER SIGN OFF:

I, the **Supervisor** identified below:

**Have read and understood the JSA.**

**Have been consulted and trained in the specific safety requirements of the activity for which I am supervising on this site**

**I will supervise the work in accordance with this JSA and Site Safety health Management Plan and understand that I am responsible for my own and fellow workers safety.**

**If found necessary to amend the JSA, I will consult with the team and help, if required in re-issuing this JSA.**

Name: _____	Signature: _____	Date: _____
Name: _____	Signature: _____	Date: _____
Name: _____	Signature: _____	Date: _____
Name: _____	Signature: _____	Date: _____
Name: _____	Signature: _____	Date: _____
Name: _____	Signature: _____	Date: _____
Name: _____	Signature: _____	Date: _____

**Sign on Sheet – Job Safety Analysis**

Date	Name	Company	Sign-on Time	Signature	Mobile Phone Number

I, the Employee / Worker identified above,

1. Have read and understood the JSA.
2. Have been consulted and trained in the specific safety requirements of the activity for which I am engaged on this site
3. I will work in accordance with this JSA and understand that I am responsible for my own and fellow workers safety
4. If found necessary to amend the JSA, I will consult with the supervisor and help, if required in re-issuing this JSA

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Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
1. Checks	<input type="checkbox"/> Unauthorized personnel/Vehicle	<input type="checkbox"/> Undertake Take 5/BMA Safe/SLAM. <input type="checkbox"/> Undertake pre-lift hazard analysis. <input type="checkbox"/> Ensure all crew are trained and competent for the task. <input type="checkbox"/> Ensure all equipment is site authorized. <input type="checkbox"/> Undertake prestart on machinery. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Inadequate Permits	<input type="checkbox"/> Check site requirements and or other permit requirements. <input type="checkbox"/> Permit in place viewed, accepted by crew and signed by correct personnel. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Unfamiliar with scope of work	<input type="checkbox"/> Crew to discuss task and come to consciences on task steps. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Hand injuries	<input type="checkbox"/> Crew to utilize the correct PPE. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Eye injuries	<input type="checkbox"/> Crew to utilize the correct PPE. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Poor visibility of employee	<input type="checkbox"/> All personnel to be fitted with high vis PPE. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Poor lighting	<input type="checkbox"/> Work area to be adequately lit <input type="checkbox"/> Other:				
	<input type="checkbox"/> Poor & or interrupted communication	<input type="checkbox"/> Dogman to be in control of lift at all times. <input type="checkbox"/> <b>Hand Signal / Whistle / Radio (Circle methods).</b> <input type="checkbox"/> Seek clarification if not clear.				

Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
		<input type="checkbox"/> Other:				
1 Checks (Cont)	<input type="checkbox"/> Not Following manufactures Guidelines	<input type="checkbox"/> Refer to manufactures guide lines located in cabin. <input type="checkbox"/> Operate within Crane Code of Practice 2006. <input type="checkbox"/> Ensures all the crew understands manufactures guidelines. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Working in Radius of other cranes, EWPs & Work Parties	<input type="checkbox"/> Use Spotter to establish good communication when working close or within another cranes radius. <input type="checkbox"/> Pos Comm's between operators and work party <input type="checkbox"/> Exclude unnecessary people when and where required <input type="checkbox"/> Other:				
	<input type="checkbox"/> Fog/Rain	<input type="checkbox"/> Crew to wait for conditions to acceptable level of risk. <input type="checkbox"/> Take Five/SAM/ SLAM. <input type="checkbox"/> Stop / Reassess / Manage <input type="checkbox"/> Resume when rain has stopped & when conditions allow work to restart <input type="checkbox"/> Other:				
	<input type="checkbox"/> Traffic	<input type="checkbox"/> Put traffic controls in place(Bund/tape /witch hats) <input type="checkbox"/> Work area barricaded off <input type="checkbox"/> Other:				
2.Isolate correctly	<input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Hydraulics <input type="checkbox"/> Stored pressure <b>( but not limited to)</b>	<input type="checkbox"/> Personal lock and danger tag. <input type="checkbox"/> Check with client representative or mine supervisor for isolation requirements. <input type="checkbox"/> Sign on isolation permit if applicable. <input type="checkbox"/> Other:				

Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
3.Setting crane	<input type="checkbox"/> People / bystanders	<input type="checkbox"/> Use barricades, witches hats or safety tape to designate the work area. <input type="checkbox"/> Spotters. <input type="checkbox"/> Make nearby personnel aware of your work and the potential hazards and control measures. <input type="checkbox"/> Other:				
3.Setting crane (Cont)	<input type="checkbox"/> Crushing between outriggers and objects	<input type="checkbox"/> Stand at the controls on the same side as being extended. <input type="checkbox"/> Don't stand in articulation area of Franna – Articulation crane or non-slewing crane <input type="checkbox"/> Other:				
	<input type="checkbox"/> Manual tasks	<input type="checkbox"/> Use correct lifting techniques. <input type="checkbox"/> Work only within your personal limits. <input type="checkbox"/> Do prejob stretches. <input type="checkbox"/> Team lifts. <input type="checkbox"/> Use machinery to move objects.(e.g. Forklift) <input type="checkbox"/> Mind on Job. <input type="checkbox"/> Act when your body is telling you it has reached its limit <input type="checkbox"/> Do not rush <input type="checkbox"/> Other:				
	<input type="checkbox"/> Pinch points	<input type="checkbox"/> Use tools (eg: crow bar) <input type="checkbox"/> Use correct PPE. <input type="checkbox"/> Eyes on hands. <input type="checkbox"/> Other:				

Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
	<input type="checkbox"/> Soft & / unstable ground	<input type="checkbox"/> Use timbers / bog mats in conjunction with manufactures guidelines. <input type="checkbox"/> Dry run the task and use a spotter. <input type="checkbox"/> Have wet material removed and replaced with suitable material. <input type="checkbox"/> Relocate to a more suitable location. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Set up next to or near excavation	<input type="checkbox"/> Apply standard depth and distance away from excavation or geotechnical engineers report. (See Crane Code of Practice 2006 located in crane cab) <input type="checkbox"/> Other:				
	<input type="checkbox"/> Underground services. <input type="checkbox"/> Sumps	<input type="checkbox"/> Enquire with site contact regarding location of services/pits/sumps. <input type="checkbox"/> Avoid setting up over underground services. ( May have to get a larger crane / cranes ) <input type="checkbox"/> Other:				
<b>3.Setting crane (Cont)</b>	<input type="checkbox"/> Wrong Position	<input type="checkbox"/> Stop Take Five/BMA Safe/SLAM. <input type="checkbox"/> Relocate crane <input type="checkbox"/> Consult crew. <input type="checkbox"/> Contact and inform supervisor of hazard. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Uneven ground	<input type="checkbox"/> Ensure PPE is suitable for task. <input type="checkbox"/> Use three point contact. <input type="checkbox"/> Have work area leveled. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Poor house keeping	<input type="checkbox"/> Good housekeeping				

Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
	<input type="checkbox"/> Wet conditions	<input type="checkbox"/> Take Five / BMA Safe / SLAM <input type="checkbox"/> Use correct PPE. <input type="checkbox"/> Be aware of hazard. <input type="checkbox"/> Drain work area. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Temperature extremes	<input type="checkbox"/> Use correct PPE. <input type="checkbox"/> Drink potable water. <input type="checkbox"/> Take regular rest breaks. <input type="checkbox"/> Lookout for team members showing signs or effects of exposure to temperature extremes <input type="checkbox"/> Take break in shade or air-conditioned area as determined by coal mine worker <input type="checkbox"/> Other:				
	<input type="checkbox"/> Contact with high voltage electrical lines	<input type="checkbox"/> Stay outside of exclusion zones. <input type="checkbox"/> Use a competent observer. <input type="checkbox"/> Relocate to another area. <input type="checkbox"/> De energise lines. <input type="checkbox"/> Other:				
<b>4.Select Rigging</b>	<input type="checkbox"/> Faulty or damaged equipment.	<input type="checkbox"/> Pre lift Hazard analysis. <input type="checkbox"/> Tag out and inform supervisor. <input type="checkbox"/> Ensure SWL is suitable to lift. <input type="checkbox"/> Inspect current lifting tag. <input type="checkbox"/> Inspect prior to use. <input type="checkbox"/> Consult team. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Incorrect selection of rigging.	<input type="checkbox"/> Trained personnel. <input type="checkbox"/> Authorized personnel. <input type="checkbox"/> Refer to SWL Tag on equipment.				



Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
		<input type="checkbox"/> Consult crane crew. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Gear not adequate for task	<input type="checkbox"/> Always work within the Manufactures SWL of the equipment. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Working at height	<input type="checkbox"/> Correct Training, authorization and issuing of permit <input type="checkbox"/> Risk Plan <input type="checkbox"/> Use adequate sized ladder <input type="checkbox"/> Use EWP <input type="checkbox"/> Lower EWP <input type="checkbox"/> Stand by Person and or ERT Teams <input type="checkbox"/> Other:				
	<input type="checkbox"/> Working on Back of Truck	<input type="checkbox"/> Spotter <input type="checkbox"/> Access through point contact <input type="checkbox"/> Use adequate sized ladders to access when needed <input type="checkbox"/> Eyes on path <input type="checkbox"/> Don't rush <input type="checkbox"/> Other:				
5. Lift load	<input type="checkbox"/> Overload Crane.	<input type="checkbox"/> Correct crane selection. <input type="checkbox"/> Monitor load with load cell. <input type="checkbox"/> Refer to load chart as intended crane configuration. <input type="checkbox"/> Check pick-up and set down radius and height prior to lifting (Dry Run) <input type="checkbox"/> Dogman to be in charge of lift at all times. <input type="checkbox"/> Trained personnel. <input type="checkbox"/> Always work within manufacturers limits.				



Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
		<input type="checkbox"/> Other:				
	<input type="checkbox"/> Crane failure	<input type="checkbox"/> Pre start. <input type="checkbox"/> Annual machinery inspection. <input type="checkbox"/> Serviced and maintained equipment. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Load failure	<input type="checkbox"/> Pre lift hazard analysis. <input type="checkbox"/> Dogman to inspect load prior to lift. <input type="checkbox"/> Other:				
<b>6. Walk with load</b>	<input type="checkbox"/> Load swing	<input type="checkbox"/> Tag lines. <input type="checkbox"/> Smooth operation of crane. <input type="checkbox"/> Dogman to inform crane operator of changing ground conditions. <input type="checkbox"/> Container to empty of liquid. <input type="checkbox"/> Area inspection. <input type="checkbox"/> Position your body to avoid injury by any moving hazard. <input type="checkbox"/> Competent operator. <input type="checkbox"/> Other:				
	<input type="checkbox"/> Windy condition	<input type="checkbox"/> Work within Crane Code of Practice 2006 limitation. <input type="checkbox"/> Ensure wind is constant (not gusty) <input type="checkbox"/> At the discretion of the dogman / Crane operator <input type="checkbox"/> Other:				
<b>7. Lower load</b>	<input type="checkbox"/> People under load	<input type="checkbox"/> Follow Golden /Cardinal rules. <input type="checkbox"/> Exclude all unnecessary personnel. <input type="checkbox"/> Tape area off. <input type="checkbox"/> Team to beware of hazard. <input type="checkbox"/> Create drop zone.				

Job Steps	Potential Hazards	Controls, Action or Procedure	Likelihood	Consequence	Risk Rating with Controls	Initial to Confirm controls in Place
		<input type="checkbox"/> Follow site requirements <input type="checkbox"/> Other:				
	<input type="checkbox"/> Uncontrolled movement of vehicle ( Truck)	<input type="checkbox"/> Remove all personnel from Truck/Vehicle. <input type="checkbox"/> Chock truck. <input type="checkbox"/> Isolate truck /vehicle. <input type="checkbox"/> Remove keys from truck/vehicle. <input type="checkbox"/> Other:				
<b>8. De-rig and demob from site.</b>	<input type="checkbox"/> As per steps 3 & 4					
<b>9. Remove Isolation if applicable.</b>		<input type="checkbox"/> De-isolate all equipment as per site requirements. <input type="checkbox"/> Sign off isolation permit if applicable. <input type="checkbox"/> Other:				

# Clermont Crane Hire PTY LTD

## Lift Study

Job:		Location:	
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Items in Bold must be completed		CRANE 1	CRANE 2	LOAD	
A1	Nominal Capacity (t)			Spreader Bar Weight	
A2	Type (Slew, Artic, Crawler)			SWL	
A3	Make . Model – Serial / Fleet No			1st Chain Weight	
A4	Boom Length (m)			Size	
A5	Attachments			SWL	
A6	Boom Section			2nd Chain Weight	
A7	Fly (m)			Size	
A8	Counterweight (t)			SWL	
A9	Outrigger config / max.articulation			3rd Chain Weight	
B	MAIN HOIST			Size	
B1	No. Parts of Line:			SWL	
B2	Line Pull (t):			4th Chain Weight	
B3	Size of Cable (mm) / Cap. (kn):			Size	
B4	Hook No & Type:			SWL	
B5	SWL (1):			Shackles Weight	
C	AUX HOIST			SWL	
C1	No. Parts of Line:			Shackles Weight	
C2	Line Pull (t):			SWL	
C3	Size of Cable (mm) / Cap. (kn):			Shackles Weight	
C4	Hook No & Type:			SWL	
C5	SWL (1):			Shackles Weight	
D	LOAD			SWL	
D1	Mass of piece to be lifted (t):			Sling Weight	
D2	Mass of Main Hook (t):			SWL	
D3	Mass of Aux / Fly Hook (t):			Sling Weight	
D4	Total Rigging / Extras (t): (=  )			SWL	
D5	Fly (Refer manuf guidelines (t)			Sling Weight	
E	Total Load (excl allowance)(t):			SWL	
E1	Total Load (Incl Allowance)(t)			Sling Weight	
				SWL	
				 Total Weight of Rigging	

Carried over from previous page

E1	Total Load (Incl Allowance)(t)	
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F	MULTIPLE CRANE FACTOR – MIN. CRANE CAPACITY (as below) (Percentage applicable_____ %)		
	=[E1] x 1.2 or 1.33 or 1.5 (t)		
G	Chart SWL at severest lift condition	t@ m	t@ m
G1	Max/Min radius (m)		
G2	Other	t@ m	t@ m
G3	% of crane SWL		
H1	Max Outrigger Load (1)		
H2	Pad / Timber Area (m <sup>2</sup> )		
H3	Pressure = [H1] ÷ [H2] (t/m <sup>2</sup> )		
J1	Lifting equipment SWL (t)		

Load weight information obtained by:												
Informed	<input type="text"/>	Calculation	<input type="text"/>									
Written	<input type="text"/>	Email	<input type="text"/>									
Document	<input type="text"/>	Other	<input type="text"/>									
		Verbal	<input type="text"/>									
		Drawing	<input type="text"/>									
		Not Supplied	<input type="text"/>									
Supplied by:												
<p>The following are rule of thumb figures from Mobile Crane Code of Practice, MP= Max bearing pressure the ground will take in t/m<sup>2</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Hard rock – 200t/m<sup>2</sup>,</td> <td style="width: 33%;">Asphalt - 20 t/m<sup>2</sup>,</td> <td style="width: 33%;">Soft clay (dry) - 10 t/m<sup>2</sup>,</td> </tr> <tr> <td>Shale &amp; sandstone – 80t/m<sup>2</sup>,</td> <td>Compact sand - 20 t/m<sup>2</sup>,</td> <td>Loose sand - 10 t/m<sup>2</sup>,</td> </tr> <tr> <td>Compact gravel (20% sand) - 40 t/m<sup>2</sup>,</td> <td>Stiff clay (dry) 20 t/m<sup>2</sup>,</td> <td>Wet clay - &lt; 10 t/m<sup>2</sup></td> </tr> </table>				Hard rock – 200t/m <sup>2</sup> ,	Asphalt - 20 t/m <sup>2</sup> ,	Soft clay (dry) - 10 t/m <sup>2</sup> ,	Shale & sandstone – 80t/m <sup>2</sup> ,	Compact sand - 20 t/m <sup>2</sup> ,	Loose sand - 10 t/m <sup>2</sup> ,	Compact gravel (20% sand) - 40 t/m <sup>2</sup> ,	Stiff clay (dry) 20 t/m <sup>2</sup> ,	Wet clay - < 10 t/m <sup>2</sup>
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H1 is the ([E1-total load _____ t] = Crane weight _____ t) x 0.75= _____ t then divide by 2 to = _____ (MAX OUTRIGGER LOAD)												
H2 is the area the outrigger timbers or bog mats cover = L_____ m x W_____ m = _____ m <sup>2</sup>												
H3 is the pressure per m <sup>2</sup> the crane and load will apply to the ground through the outrigger timbers or bog mats, H1 (above) _____ t divided by H2 (above) _____ t = _____ t												
<p>If ground bearing pressure is lower than the outrigger pressure (H3) then more timber or bog mat area will be required to reduce the H3 pressure.</p> <p>If the ground is too unstable or soft then the alternate arrangements shall be made (i.e. reposition crane, grade &amp; compact surface, dual lift (to reduce load).</p> <p>If it is too soft due to weather &amp; water it may be preferable to postpone the lift until the ground is more suitable</p>												

Max Wind Speed (m/s): .....

As Supplied by: Supervisor / Client: .....

Dated:.....

If it helps demonstrate the lift or some aspects of the lift, for example, difficult access to and from the lift site, proximity of power lines, trenches, obstructions, draw a diagram:

Elevation: Boom Length and Angle at Pickup & Placement, Head Height, Clearance

Any hazards identified that are not listed must be added, analysed, action taken and JRA.

Any Change in Work Method on page 1 requires a new JSA

[illegible]

Environmental Conditions: Record the general conditions including weather, lighting, ground conditions, standing etc., if any of these are unacceptable consult with project supervisor
1. Standing
2. Light / Sunlight angle:
3. Wind:
4. Weather
5. Visibility

**MAN LIFT WORKBOX  
PRE-LIFT CHECK AND RECORD OF USE**

**M 0001**

**THIS SECTION TO BE COMPLETED BY CRANE OPERATOR**

Rope Condition Check	<input type="checkbox"/>	Clutch, Brake "Dead-Man" Check	<input type="checkbox"/>
Boom Assembly Check	<input type="checkbox"/>	All Motion Controls Check	<input type="checkbox"/>
Hook & Block Check	<input type="checkbox"/>	Overwind Protection Check (Anti Two-Block)	<input type="checkbox"/>
Boom Limit Check	<input type="checkbox"/>	Fuel, Oil & Water Check	<input type="checkbox"/>

Crane SWL If the Jib or Boom is at maximum radius for the lift, the crane safe working load when divided by 2 must be equal or greater than the total load of the Workbox and its contents.  
Minimum safe working load 1,000KG

Yes or  
No

☐

CRANE OPERATOR [print name] \_\_\_\_\_ Signed \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**THIS SECTION TO BE COMPLETED BY THE DOGGER**

Work Box Check	<input type="checkbox"/>	Work Box Rigging Check	<input type="checkbox"/>
Harnesses, Lanyards, Fittings Check	<input type="checkbox"/>	Wind Speed Below 7m/s[25kph] Check	<input type="checkbox"/>
Clear of Storms & Lightning Check	<input type="checkbox"/>	Wind Speed Constant Check	<input type="checkbox"/>
Clear of traffic / Obstruction Check	<input type="checkbox"/>		<input type="checkbox"/>

DOGMAN [print name] \_\_\_\_\_ Signed \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**DOG BOX SIGN-ON**

Name (print)	Company	Sign-on	Sign-off