

# CRITICAL LIFT PLAN

## MOBILE CRANES

IOC FORM C6-03, REV. 2

### 1.0 GENERAL INFORMATION

JOB DESCRIPTION: _____	
DATE: _____	
WORK ORDER NUMBER: _____	LIFTING DEVICE ID #: _____
LIFTING DEVICE MAKE: _____	LIFTING DEVICE MODEL: _____
Is the lifting device "Annual Inspection" valid?	Y <input type="checkbox"/> N <input type="checkbox"/>
Has the crew completed this same lift in the past? If yes, obtain copy of CLP.	Y <input type="checkbox"/> N <input type="checkbox"/>

### 2.0 CRITICAL LIFT CRITERIA

Does this lift involve any of the following criteria? (Check all applicable.)	
a) Two or more cranes used for a single lift. Complete separate CLP for each. (De-rate each crane to 75% rated capacity)	Y <input type="checkbox"/> N <input type="checkbox"/>
b) Over operating facilities where personnel may be endangered.	Y <input type="checkbox"/> N <input type="checkbox"/>
c) Within 5.5 m of power lines. (Follow requirements as per C2.2)	Y <input type="checkbox"/> N <input type="checkbox"/>
d) Personnel in cages/man-baskets attached to equipment not designed for the explicit purpose of lifting people.	Y <input type="checkbox"/> N <input type="checkbox"/>
e) At, but not above, max. rated capacity. (For rated capacity at this specific boom angle and load radius.)	Y <input type="checkbox"/> N <input type="checkbox"/>
f) Between 90% and max. rated capacity for loads greater than 15 tons (30,000 lbs)	Y <input type="checkbox"/> N <input type="checkbox"/>
g) When the operator cannot see the load at all times during the lift.	Y <input type="checkbox"/> N <input type="checkbox"/>
h) Material requiring special handling (e.g. dangerous goods, size/shape, requires non-standard rigging, or is of high monetary value.)	Y <input type="checkbox"/> N <input type="checkbox"/>
i) Wind velocity (including gusts) greater than 30 Km/h.	Y <input type="checkbox"/> N <input type="checkbox"/>
j) Crane set-up closer to an excavation/water body than the excavation/water body is deep.	Y <input type="checkbox"/> N <input type="checkbox"/>
k) Lifts to and from water.	Y <input type="checkbox"/> N <input type="checkbox"/>
k) Travelling with a load greater than 50% of capacity in a given set-up – or as recommended by the manufacturer.	Y <input type="checkbox"/> N <input type="checkbox"/>
l) Two or more cranes in proximity where the booms or loads could make contact.	Y <input type="checkbox"/> N <input type="checkbox"/>

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3.0 LIFT DETAILS				
<i>Component</i>	<i>Information</i>			
Item(s) to Be Lifted				
Purpose or Reasoning for Lift				
Environment Lift to be conducted in				
	Workshop	Field	Plant	Other
What is the lifting equipment route to the lift site? List major potential hazards. (consider overhead power lines)				

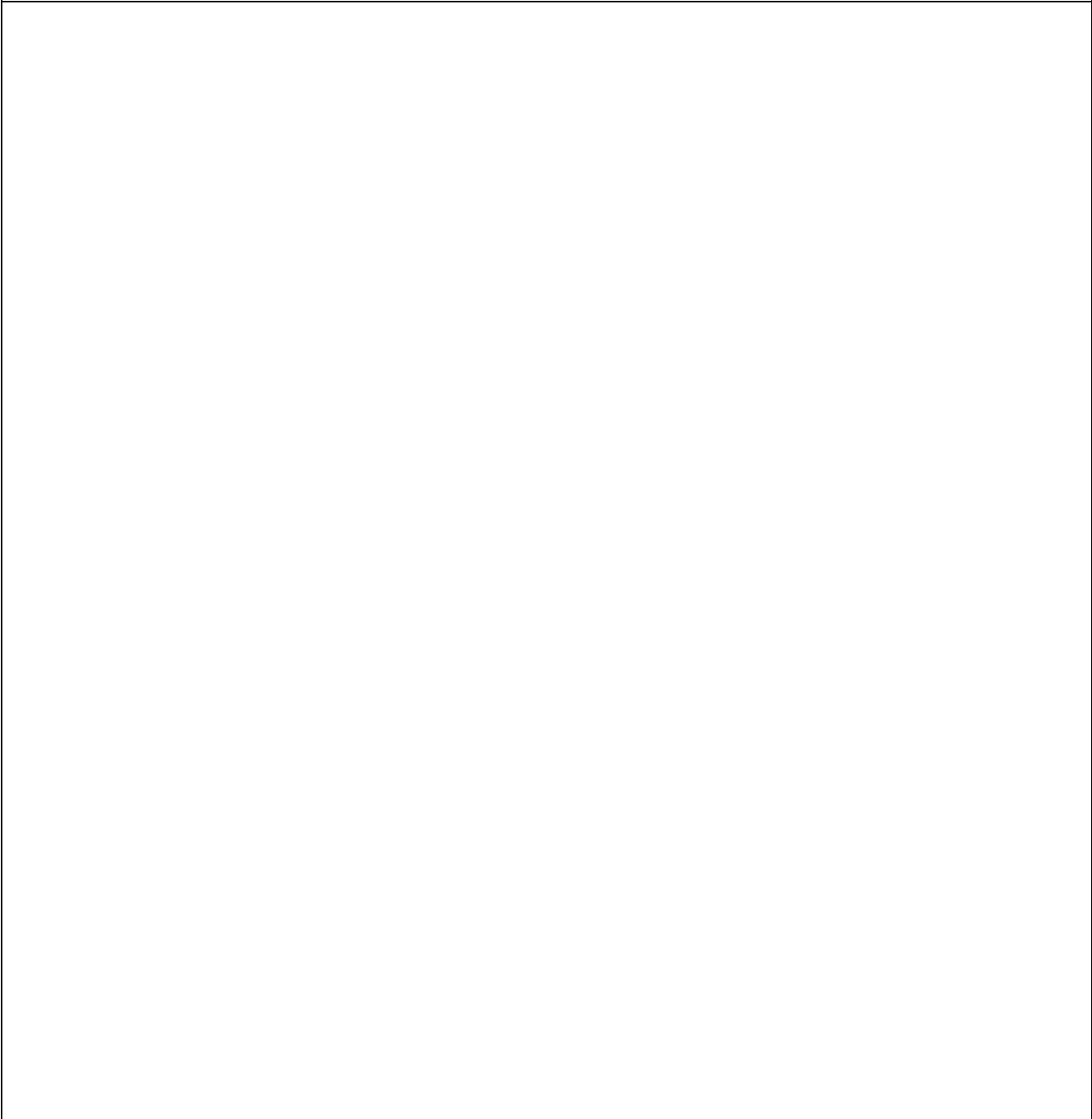
4.0 LIFT REVIEW		
<i>Component</i>	<i>Information</i>	
Height of Lift (consider swing path)		ft.
Surface Area of Load <small>(For consideration for impact due to wind)</small>		
Number of tag lines required to stabilize load?		
Is the crane set up level in all directions?	Y <input type="checkbox"/>	N <input type="checkbox"/>
Number of Parts of Line adequate for load? <small>Confirm in operator's manual or load chart.</small>	Y <input type="checkbox"/>	N <input type="checkbox"/>
Length of wire rope for load travel adequate?	Y <input type="checkbox"/>	N <input type="checkbox"/>
Center of Gravity of load OK? <small>(Should be within and below rigging points)</small>	Y <input type="checkbox"/>	N <input type="checkbox"/>
Is the wire rope reeving balanced?	Y <input type="checkbox"/>	N <input type="checkbox"/>
Other:	Y <input type="checkbox"/>	N <input type="checkbox"/>
If "No" to any of the above, review the condition and take corrective action.		
<i>Action</i>	<i>Completed By</i>	
1.		
2.		
3.		

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**4.1 LIFT LAYOUT DIAGRAM (Attach extra pages if necessary)**

Sketch intended to assist in clarification of crane set-up in relation to load, surrounding structures, rigging, and lay-down location. To be completed at the discretion of the Lift Planner.



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5.0 RIGGING DATA	
<i><b>Component</b></i>	<i><b>Information</b></i>
Rigging pre-use inspection complete?	Y <input type="checkbox"/> N <input type="checkbox"/>
Sling Material (Chain, Wire Rope, Synthetic)	
Sling Diameter	
Sling Length	
Sling Configuration (Choker, Basket, Straight?)	
Sling Capacity (in planned configuration)	
Shackle Size (pin diameter)	
Shackle Capacity	
Spreader Beam (include ID Number)	
Spreader Beam Capacity	
Other Rigging Component's Capacity	
<b>Max. Rigging Capacity as Configured</b>	
Does rigging capacity match or exceed planned loading? If no, obtain adequately sized rigging.	Y <input type="checkbox"/> N <input type="checkbox"/>
<b>COMMENTS:</b>	

6.0 PROXIMITY TO POWER LINES	
<b>Check here</b> <input type="checkbox"/> <b>if this section is not applicable to this lift.</b>	
<i><b>Component</b></i>	<i><b>Information</b></i>
Distance to nearest power line in lift area from any part of lifting device or load?	
Can lift be completed without entering exclusion zone as listed in IOC Procedure C2.2?	Y <input type="checkbox"/> N <input type="checkbox"/>
<b>If answer is <u>NO or UNKNOWN</u>, complete ELECTRICAL AREA PROXIMITY PERMIT</b>	

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### 7.0 GROUND STABILITY & TOPOGRAPHY

**Check here  if this section is not applicable to this lift.**

<b>Component</b>	<b>Information</b>		
Does the supporting structure have adequate capacity for crane and load?	Y <input type="checkbox"/>	N <input type="checkbox"/>	
Is the crane situated away from an excavation? (Horizontal clearance shall be greater than hole depth)	Y <input type="checkbox"/>	N <input type="checkbox"/>	
Is the crane sufficiently clear of any known underground structures?	Y <input type="checkbox"/>	N <input type="checkbox"/>	
Are the Ground Conditions level at the lift site?	Y <input type="checkbox"/>	N <input type="checkbox"/>	
Are the Geological Ground Conditions stable at the lift site – particularly near water bodies?	Y <input type="checkbox"/>	N <input type="checkbox"/>	
Is the lay-down prepared and stable?	Y <input type="checkbox"/>	N <input type="checkbox"/>	
Geological Ground Conditions Inspected and Approved by Mining Official/Engineer if ground conditions in the area are assessed to be unstable or on unconsolidated material. (For Field Picks or Areas not designed for crane work)			
	<i>Name</i>	<i>Signature</i>	<i>Date</i>

If answer is **NO**, initiate actions to **Stabilize Area & Level the Area**

#### 7.1 ACTIONS TO STABILIZE AREA

<b>Action</b>	<b>Completed By</b>
1.	
2.	

#### 7.2 ACTIONS TO LEVEL AREA

<b>Action</b>	<b>Completed By</b>
1.	
2.	

### 8.0 LOCAL SECURITY CONTROL

Will other personnel or equipment, other than lift team and their equip., be in close proximity to lift?	Y <input type="checkbox"/> N <input type="checkbox"/>
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If answer is **YES**, initiate actions to **Barricade or Evacuate Lift Area**

#### 8.1 ACTIONS TO BARRICADE AREA

<b>Action</b>	<b>Completed By</b>
1.	
2.	

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### 9.0 WEATHER & ENVIRONMENTAL CONCERNS

**Check here  if this section is not applicable to this lift.**

<b>Component</b>	<b>Information</b>				
Weather Conditions	Sun	Wind	Rain	Snow	Lightning
If a lift must be performed during periods of inclement weather, a Risk Assessment must be completed prior to executing the lift. If lightning is observed in the area, the lift must be cancelled until conditions clear.					
Temperature at time of lift				°F	
Check operator's manual for lowest temperature a lift may be executed. The crane's maximum capacity rating is de-rated 2% for every one degree below minus 20 degrees C, or to manufacturer's recommendations.					
Wind speed at time of lift				mph	
Check operator's manual for maximum wind speed a lift may be executed. Any lifts that must be performed in wind speeds that exceed 30 Km/h are subject to a Risk Assessment, or to manufacturer's recommendations.					
Maximum Forecasted Wind Speed				mph	

### 10.0 LIFTING PERSONNEL

**Check here  if this section is not applicable to this lift.**

Is this the best access mode to the work location? Have other options been considered?	Y <input type="checkbox"/> N <input type="checkbox"/>
Has the basket or cage been designed and approved by a Professional Engineer as per CSA Z150 or equivalent?	Y <input type="checkbox"/> N <input type="checkbox"/>
Does the basket or cage have a valid inspection certificate?	Y <input type="checkbox"/> N <input type="checkbox"/>
Is the capacity clearly marked on the basket or cage?	Y <input type="checkbox"/> N <input type="checkbox"/>
Is there a secondary means of support connected above the hook?	Y <input type="checkbox"/> N <input type="checkbox"/>
Are the lifting slings dedicated to personnel lifting only?	Y <input type="checkbox"/> N <input type="checkbox"/>
Does the personnel have the required safety equipment? (Fall arrest and others)	Y <input type="checkbox"/> N <input type="checkbox"/>
Is there a fixed fall arrest support point for each person?	Y <input type="checkbox"/> N <input type="checkbox"/>
Does the applicable crane winch have power-down capability to prevent free-fall?	Y <input type="checkbox"/> N <input type="checkbox"/>
Was the anti-two-block noted as working in the Pre-Op inspection?	Y <input type="checkbox"/> N <input type="checkbox"/>
Has a competent person inspected all crane structural elements prior to the lift?	Y <input type="checkbox"/> N <input type="checkbox"/>
Has the crane operator been instructed to remain at the controls during the lift?	Y <input type="checkbox"/> N <input type="checkbox"/>
Is the operator aware that the crane shall not be traveled during the lift?	Y <input type="checkbox"/> N <input type="checkbox"/>
Has the "Emergency Rescue Plan" been completed and communicated to crew?	Y <input type="checkbox"/> N <input type="checkbox"/>
Has a trial lift been carried out for the secondary and primary supports as per code?	Y <input type="checkbox"/> N <input type="checkbox"/>

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11.0 LIFT COMPUTATION		
<i><b>Component</b></i>	<i><b>Information</b></i>	
Boom Length		ft
Jib Length		ft
Lowest Boom Angle		ft
Max. Load Radius (Consider side and rear)		ft
Outrigger Footplate Size (OK? Y <input type="checkbox"/> N <input type="checkbox"/> )		ft <sup>2</sup>
Counter Weight Configuration (OK? Y <input type="checkbox"/> N <input type="checkbox"/> )		lbs
Temperature De-rating (if applicable – check manual)		lbs
Wind Speed De-rating (if applicable – check manual)		lbs
Other		
<b>If the lifting device is used for lifting personnel, use only 50% of the rated capacity.</b>		
<b>Lifting Device Capacity as Configured</b>		<b>lbs</b>
Max. Cargo and Container Weight (in/out of water?)		lbs
Lifting Block and Hook Weight		lbs
Hoist Rope Weight (# parts x length x unit wt.)		lbs
Rigging Weight (Slings, Shackles, Load Cell, Spreader Beam)		lbs
Effective jib and ball weight if not used for lift.		lbs
Other		
If dynamic loading is of concern, due to travel with load, operating speeds, or boom movement, multiply the loads above by a factor of 1.25. Safely tie load to crane to prevent swing out, if travelling.		
Is there potential that the load is frozen, stuck, caught on other structures or ground, or under water? If yes, ensure load is free before attempting lift. <span style="float: right;">Y <input type="checkbox"/> N <input type="checkbox"/></span>		
<b>Total Lift Weight</b>		<b>lbs</b>
<b>Total Lift Weight <u>Shall Not Exceed</u> Capacity as Configured</b>		

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12.0 LIFT-TEAM PERSONNEL	
<i>Component</i>	<i>Information</i>
Number of people needed to complete lift	
Is the rigger(s)/spotter(s) trained, competent and qualified? Crane operator can designate rigger(s).	Y <input type="checkbox"/> N <input type="checkbox"/>
Is the crane operator(s) trained, competent and qualified?	Y <input type="checkbox"/> N <input type="checkbox"/>
Method of communication between spotter/rigger and crane operator?	Radio <input type="checkbox"/> Hand Signals <input type="checkbox"/>
Method of communication between multiple crane operators in close proximity? Must communicate prior to each swing movement.	Radio <input type="checkbox"/> Hand Signals <input type="checkbox"/>

13.0 LIFT PLAN SIGN-OFF			
<b>Crane Operator:</b> I have been briefed of the contents of this lift plan and accept the duty of ensuring the lift is carried out to the agreed procedure, to the limits of my responsibilities. (If the lift continues through a shift change, the new operator shall review and sign above the original name.)			
	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Lifting Rigger:</b> I have been briefed of the contents of this lift plan and accept the duty of ensuring the lift is carried out to the agreed procedure, to the limits of my responsibilities.			
	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Lifting Supervisor:</b> I have been briefed of the contents of this lift plan and accept the duty of ensuring the lift is carried out to the agreed procedure.			
	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Lift Planner:</b> I confirm that I have planned this lift in accordance with IOC Procedures and accept the responsibilities of my position.			
	<b>Name</b>	<b>Signature</b>	<b>Date</b>

**REMEMBER to "Take Five" before beginning lift!**

**REMEMBER to complete Lifting device pre-operational checklist!**



# EMERGENCY RESCUE PLAN

IOC FORM C6-04, REV. 1.0

In the event of an emergency incident (**IF SECTION 10 IS APPLICABLE**) the following procedure is to be followed:

- Recovery of persons

<i>Task</i>
<i>Person(s) in Charge of Job</i> _____
<i>Person Assigned to Task</i> _____
<i>Response/Rescue Method</i>
<i>How</i>
<i>Who</i>
<i>Equipment</i>
<i>Communications Used</i>
<i>Resources</i>

ATTACH A RISK ASSESSMENT AND ANY OTHER ADDITIONAL INFORMATION TO SUPPORT THE RESCUE PLAN

## EMERGENCY RESCUE/PLAN CHECKLIST

ITEM	DESCRIPTION	REQUIRED	LOCATION OF EQUIP.	EQUIP. CHECKED
1.	WORKING AT HEIGHTS	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
2.	TRAINED AND APPOINTED PERSONNEL	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
3.	RISK ASSESSMENT	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
4.	RESCUE PLAN COMPLETED AND UNDERSTOOD	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
5.	PERSONAL PROTECTION EQUIPMENT	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
6.	FIRST AID KIT	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
7.	COMMUNICATION	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
8.	BREATHING APPARATUS	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
9.	LIFE GUARD 10 MINUTE OXYGEN PACK	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
10.	RESUSCITATOR UNIT	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
11.	RELEVANT SAFE WORK PROCEDURES	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Other equipment available</b>				

## CLOSE-OUT OF LIFT PLAN

IOC FORM C6-05, REV. 1

I HEREBY CLOSE THIS PLAN:

<input type="checkbox"/>	CONFIRM THE IMMEDIATE WORK AREA HAS BEEN TIDIED			
<input type="checkbox"/>	CONFIRM THAT ALL PERSONNEL WORKING UNDER THE PLAN AND PERMIT HAVE SIGNED OFF AND LEFT THE WORK AREA			
<input type="checkbox"/>	CONFIRM THERE HAS BEEN NO DAMAGE TO THE ENVIRONMENT FROM THE WORK CONDUCTED			
<input type="checkbox"/>	WHERE EQUIPMENT IS UNABLE TO BE RETURNED TO SERVICE AN "OUT OF SERVICE" TAG HAS BEEN PLACED ON THE RELEVANT ITEM			
<input type="checkbox"/>	HAVE VISUALLY INSPECTED THE WORK AREA TO ENSURE THE TASK IS COMPLETE AND THE EQUIPMENT IS SAFE AND READY FOR SERVICE.			
<input type="checkbox"/>	ENSURED COPY OF PLAN IS PLACED IN CRITICAL LIFT REGISTRY			
<input type="checkbox"/>	HAVE NOTIFIED THE ACTIVITY SUPERVISOR OR JOB-CO-ORDINATOR OF THE JOB STATUS			
<b>PERSON IN CHARGE OF JOB (Block Letters)</b>				
<b>SIGNATURE</b>				
<b>LIFT PLAN</b>	Date		Time	