KEN HARROP
CRANE HIRE

TEL/FAX: 01925 765940 [redacted]

IDno- KH26887

METHOD STATEMENT / LIFTING PLAN / RISK ASSESMENT
For
CONTRACT LIFTING OPERATION AT No1. Balloon St

Client	Cubic Works Ltd		
Site	1 Balloon St, Manchester M4 4BE		
Client Contact Details	Shaun Murphy - [redacted]		
Proposed Date (s)	24/01/27 – 11pm on site		
Brief Scope of Work **Full details inserted in 3.1** **Only detailed items will be lifted.**	Lifting of chiller units + related plant from transport, hoist and slew as required and lower on to concrete base using mobile crane (Road closure & close proximity to overhead tram lines)		
Lift Classification **Revision No. 1 –** 09/10/26	**Basic**	**Standard**	**Complex**
			✓

Author/ Appointed Person	Print Name Jack Harrop – *(**CPCS No**. – 40591287 & **Exp** -Apr 2029)*
Contact Details	[redacted]
Date 09-10-2026	S[redacted]
Reviewer	P Ken Harrop
Date 09-10-2026	Sign [redacted]
Client Representative Approval	Print Name
Date	Sign

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1.0 INTRODUCTION

1.1 This Method Statement details the equipment and safe procedures which are to be employed by Ken Harrop Crane Hire Ltd. All operations will be conducted in compliance with current legislation and guidance and under CPA Terms & Conditions only. Applicable documentation is available on request.

The environmental impact of our machines are minimal, the main aspects of using mobile plant on site are noise, vibration and emissions from exhausts. Any other aspects and impacts would only occur in emergency situations.

1.2 THE APPOINTED PERSON

The Appointed Person who has prepared this Method Statement carries full responsibility for the safe completion of all works carried out during the operation. It is the responsibility of The Appointed Person to ensure that the Lift Supervisor is adequately briefed on the contents of this method statement.

1.3 THE LIFT SUPERVISOR

Prior to the commencement of the works the Lift Supervisor must ensure that all personnel involved are adequately briefed on the contents of this method statement. This briefing shall take the form of a "toolbox talk". The Lift Supervisor must liaise with the Appointed Person should site circumstances require material change to the methods employed during the operation and document these changes.

The Lift Supervisor must also liaise with the client in respect to site security and emergency procedures and ensure all personnel are briefed.

1.4 THE SLINGER / SIGNALLER

The Slinger/Signaller is responsible to attaching and detaching the lifting accessories/equipment between the hook and the load. He shall use the lifting accessories in accordance with the Lift Plan and any instructions given by the Lifting Supervisor. The Slinger/Signaller is also be responsible for directing the crane with the use of Verbal, hand signals or two-way radios.

It is to be noted that the Appointed Person may deem that the Lift Supervisor may also take the role of Slinger/Signaller.

1.5 CRANE OPERATOR

The Crane Operator(s) are responsible for correct operation of the crane in accordance with the manufacturers' instructions and in accordance with the Safe System of Work as detailed in this Lift Plan. The Crane Operator(s) must be familiar with the manufacturer's instructions for rigging operations, maintenance and operating the crane.

1.5 LEGISLATION & GUIDANCE

This Lifting Plan has been prepared in accordance with the following legislation:

1. The Health and Safety at Work Act 1974 (UK)
2. Working at Height Regulations (2005)
3. The Management of Health and Safety at Work Regulations (UK) (1999)
4. The Lifting Operations and Lifting Equipment Regulations (LOLER) (1998)
5. The Provision and Use of Work Equipment Regulations (PUWER) (1998)
6. The Construction, Design and Management Regulations (CDM) (2015)
7. British Standard 7121-1 Code of Practice for safe use of cranes (2016)
8. British Standard 7121-2 Code of Practice for inspection, testing and examination of cranes (2022)
9. British Standard 7121-3 Code of Practice for safe use of mobile cranes (2019)
10. LOLER Approved Code of Practice (ACoP) L113
11. Manual Handling Operations Regulations (1992)
12. Control of Substances Hazardous to Health Regulations (2002)

1.6 TOOLBOX TALK RECORD

Prior to commencing the operation all personnel involved in the operation are to sign below to confirm that a clear briefing explaining the job, risks involved and emergency procedures has been given and is understood.

Signing this form constitutes a declaration that you have fully understood the contents of the briefing given and understand that:

- If you are unsure about the method of work, you must stop work immediately and seek clarification from your supervisor.
- you must never change the method of work without prior consultation and approval from site management.

If you are in any doubt, stop work and ASK!

NAME	SIGNATURE	DATE	Role	Card Number	Expiry
Jack Harrop			AP / Crane Supervisor	40591287	Apr 29

2.0 THE SITE

2.1 SITE INFORMATION

Enabling Works required by client / others	Ensure Ground Conditions are correct for Maximum Out-rigger Loadings. Maximum Rigger Loading will be supplied**. Further requirements detailed below in section 2.2**
Access / Egress	Site to be cleared of any obstructions to allow access and set-up of crane such as skips and fencing. Site is easily accessible from federation St, access on to balloon st only once tram operator has given permission to proceed.
Overhead Cables / Obstructions	Caution must be observed during crane operations including rigging / de-rigging. Caution of overhead tram line 7.5m above ground level, lift supervisor to constantly monitor clearance and tram operator to confirm in person that the lines are de-energized.
Ground Conditions	Crane will be setting up on hard standing cobbled road constructed area used by a high volume of vehicles.
Underground Services Voids /Vaults	Client to give locations under and near to outrigger positions. Crane outriggers not to be placed near man hole covers. Large outrigger mats used to mitigate ground subsidence.
Road Access to site	Access to the site is easily accessible via Federation St and then on to Ballon St. Caution taken when positioning crane as the area could be pedestrianized.
Local Authority Concerned	Manchester city Council
Road Closure Details	Dutton TM to provide barriers and signage at either end of the lifting area on Ballon St + Chapter 8 barriers to enclose lifting area
Permit Times	Tram Operator to allocate- 3 hours operation

2.2 CLIENT SHALL PROVIDE THE FOLLOWING

Safe access and traffic management for the delivery of the crane, support vehicles and personnel. Other site activities should not impede on the access routes and working area of the crane etc.

Firm, level ground to enable the crane and associated support vehicles to travel and safely set up in position. A clear level hard standing area for the crane capable of withstanding the anticipated outrigger loads to be imposed as detailed in this method statement.

Clear and concise communication between KHCH, on site contractors and involved operatives prior and during the works

Their site specific inductions, Method statement & Risk Assessment document which identifies work methods and any hazards (environmental or other) that may be present within the works area.

All necessary information relating to ground conditions. Confirmation of the location of any underground services or vaults / voids in the agreed crane position(s). This is in accordance with BS7121 (part 1).

Personnel required to carry out mechanical installation of chillers and ancillaries being lifted plus additional requirements such as securing all lifts before disconnecting lifting tackle & removing personal from the lift area while lifting is taking place.

2.3 CLIENT INTRESTS & PROCEDURES

The client will receive a fully developed Lift plan and RAMS package to demonstrating that the crane configuration, outrigger loadings, slew and jib radius will remain within the operating envelope.

Evidence of competent, CPCS cards, valid LOLER certification, wind monitoring procedures, exclusion zones, emergency contingency planning and continuous communication protocols with all relevant bodies will be provided before and throughout the lifting operation.

A clients representative will also be present on site to oversee the commencement of the crane set-up, lifting operations and compliance with all site interface & safety procedures to ensure there is no risk to infrastructure or public.

2.4 PRE SITE CONDITIONS CHECKLIST

Client has approved crane position in accordance with drawing / sketch	YES	✓	NO		N/A	
Road closure / permits granted	YES	✓	NO		N/A	
Power outage arranged	YES	✓	NO		N/A	

2.5 ON SITE CONDITIONS CHECKLIST

Clear working area	YES		NO		N/A	
Exclusion zone in place & tram lines de-energized	YES		NO		N/A	
Outrigger mats installed as outlined	YES		NO		N/A	
Crane configuration used as outlined	YES		NO		N/A	
Lifting tackle used as outlined	YES		NO		N/A	
Established communications between Ops	YES		NO		N/A	
Weather conditions within working limits	YES		NO		N/A	
Safe access to & at the lifting area	YES		NO		N/A	
Clients approval to proceed with work	YES		NO		N/A	

3.0 THE LIFT

3.1 - DETAILS OF THE LIFT(S) Main Lift Crane

The values stated below are showing the maximum weight and radius for the crane during each retrospective lift

Information provided by the client	MAIN LIFT	ADDITIONAL LIFTS	ADDITIONAL LIFTS
Description of Item (s)	Daikin Chiller Unit No.1	Daikin Chiller Unit No.2	Chiller ancillaries and related items
Dimensions	W=2,238mm, L=3,608mm, H=2,553mm	W=2,238mm, L=3,608mm, H=2,553mm	Various
Net Weight	3,687kg (Maximum single load)	3,687kg (Maximum single load)	Various (Under 500kg)
Value	Under £500,000	Under £500,000	Under £500,00
Lifting Points	B shackles through lifting eyes	B shackles through lifting eyes	Various
Centre of Gravity	Central to Item APM	Central to item APM	Central to item
Lift Measurements and Obstructions			
Max Radius with item	12.4m	10.6m	10.6m
Height of Lift / jib head	5.8m	5.8m	5.8m
Stand Off if Required	8.5m from tram line pole	8.5m from tram line pole	8.5m from tram line pole
Obstructions	Tram lines & tree	Tram lines & tree	Tram lines & tree
Lift Weights			
Max Net Weight of Load	3,687kg (max)	3,687kg	500kg
Weight of Hook block	195kg (single sheeve block)	195kg	195kg
Estimated Weight of Tackle	350kg	350kg	200kg
Deduction for stowed fly jibs/ Super lift frames	100kg	100kg	100kg
Gross Lift Weight	4,332kg	4,332kg	995kg
Crane & Duty Required			
SWL & Radius	**6,000kg @12.4m = 72.2%**	**7,300kg @ 10.6m = 59.3%**	**7,300kg @ 10.6m = 13.6%**
Cranes Required	**Liebherr LTM 1030 2.1**	**Liebherr LTM 1030 2.1**	**Liebherr LTM 1030 2.1**
Additional Information	**2X tag lines used on each load** **CRANES HIEGHT LIMITATION SET TO 5.8M**	**2X tag lines used on each load** **CRANES HIEGHT LIMITATION SET TO 5.8M**	**2X tag lines used on each Load** **CRANES HIEGHT LIMITATION SET TO 5.8M**

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3.2 GENERAL INFORMATION

Describe any unusual or notable features of this lifting operation here: Lifting below Tram Lines

4.0 THE EQUIPMENT

4.1 CRANAGE

Purpose	**Crane 1 Main Crane – Main Lift Configuration**						
Make / model / capacity	**Liebherr / LTM-1030 2.1 / 35t**						
Outrigger base	6.00m X 6.25m vario	*Short rigged?*	*Yes*		*no*	✓	
Counterweight	5.5t						
Main Boom Length	13.2m @ 19%	*Guyed boom?*	*Yes*		*no*	✓	
Fly Jib	N/A	at 0	degrees				
Luffing Fly Jib	N/A						
Hook block	195kg (3 Sheeve)						
Standard Outrigger mats	4 no. 1,000 round Nycast 40mm thick	*(state number and size)*					
Additional Mats	4 no. 1.2m X 1.8m Nycast 40mm thick	*(state number and size)*					

Purpose	**Crane 2– Slave crane – Main Lift Configuration**						
Make / model / capacity:							
Outrigger base:		*Short rigged?*	*Yes*		*no*	✓	
Counterweight:							
Main Boom Length:		*Guyed boom?*	*Yes*		*no*	✓	
Fly Jib:		at	degrees				
Luffing Fly Jib:							
Hook block:							
Standard Outrigger mats:		*(state number and size)*					
Additional Mats:		*(state number and size)*					

Purpose:	**Crane 3 – Lift Crane/Alternative**						
Make / model / capacity:							
Outrigger base:		*Short rigged?*	*Yes*		*no*		
Counterweight:							
Main Boom Length:		*Guyed boom?*	*Yes*		*no*		
Fly Jib:		at	degrees				
Luffing Fly Jib:							
Hook block:							
Standard Outrigger mats:		*(state number and size)*					
Additional Mats:		*(state number and size)*					
Additional equipment required to provide safe access for attaching and removal of tackle to the lift .Tag lines X2							

4.2 LIFTING TACKLE REQUIRED FOR THE LIFTING OPERATION

SHACKLES (Hook & Load End)	.4 No – 4.75te B shackles . 1 No – 12t B Shackle
SLINGS / CHAINS (Wire Ropes/Nylon Slings/Chains)	. .2No. – 6.0m long 5.6te 2 leg chains .4No. – 6.0m long 3te yellow web slings
LIFTING / SPREADER BEAMS	.1No. – 2.5m long 5te center point lifting beam **(Hired In)**
ADDITIONAL TACKLE (Man Basket/Brick Forks/Nets/Suction Pad)	
ADDITIONAL MATS / PANS	1.2m X 1.8m Nycast mats
HIRED IN LIFTING EQUIPMENT / TACKLE	As above

Note

- All lifting tackle certification to be available on site
- The Lift Supervisor shall inspect **all** tackle prior to every use
- Any tackle supplied by client to be fit for purpose, fully certificated and in good condition
- Any damaged tackle item shall be marked '**NOT FOR USE**' and returned to depot for disposal
- Nylon slings must be protected from sharp corners using timber or other suitable packing

5.0 MAXIMUM GROUND LOADS

5.1 CRANE 1 Main Lift Crane

Maximum Outrigger point Load	147.09KN / 15te
Matting Area Provided	2.16 sq/meters
Resulting Ground Bearing Pressure	6.94 te per square meter

5.2 CRANE 2 Slave crane

Maximum Outrigger Load	
Matting Area Provided	
Resulting Ground Bearing Pressure	

5.3 CRANE 3

Maximum Outrigger Load	
Matting Area Provided	
Resulting Ground Bearing Pressure	

5.4 SUPPORT VEHICLES (If Required)

Vehicle & Trailer Types	
No of Axles	
Axle Weights	
Gross Weight	
Measurements	

Note

- **Client is responsible for ensuring that the ground conditions are suitable to accept the calculated loadings and pressures shown above.**

6.0 PERSONNEL

6.1 Ken Harrop Crane Hire's scope includes supply of the following site personnel

Roll	Number of	Name	Sign
Lift Supervisor	1		
Crane Operators	2		
Slinger/Signaller	1		
Other			

7.0 WEATHER CONDITIONS

7.1 The maximum wind speed in which this operation can take place is **9.0** metres per second as set by the manufactures operating manual for both cranes. Reduced to **7.0** mps if lifting people

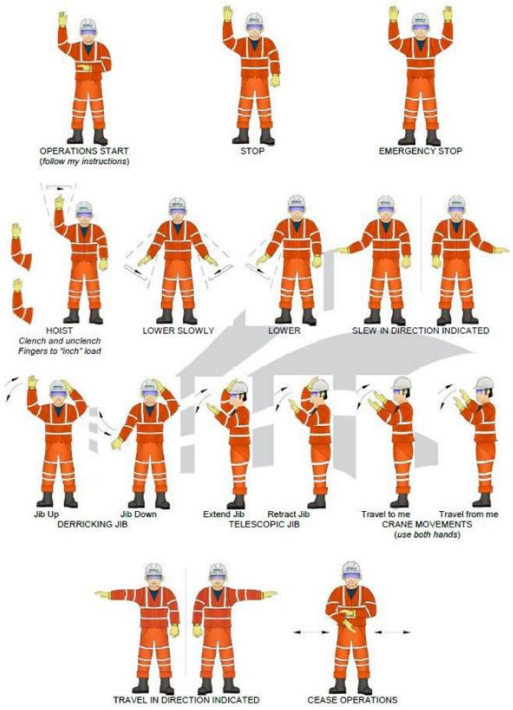
Note

- Local conditions and safety of personnel may dictate that the Lift Supervisor and/or Crane Operator have to stop lifting operations at a lower wind speed than specified above.
- Lifting operations must stop during storms, or when there is a risk of lightning strikes.
- For all lifting operations involving Man Riding maximum allowable working wind speed is 7m per second.
- Weather conditions to be checked by using hand held anemometer before rigging and then crane manufacture anemometer during lifting operations

8.0 COMMUNICATIONS

8.1 Communication between Lift Supervisors, Operators & Slinger/Signallers

Hand Signals	✓	Two Way Radios by KHCH	✓
Second Banks man	✓	Two Way Radios by client	



Note

- Before radios are used during lifting operations a radio check must be performed to confirm they are working correctly and that personnel are aware how to use them.
- Radios set to the same frequency.
- All involved in the lifting operation are able to communicate with each other.
- Radios have sufficient power to last the duration of the lifting operations
- Location of spare batteries.
- Continue these checks during all lifting operations involving two way radios.

9.0 PERSONAL PROTECTIVE EQUIPMENT

9.1 The following shall be worn by all operatives

Hard hats (EN 397 standard)	✓	Protective footwear (EN ISO 20345)	✓
Gloves (BS EN 3882016A12018)	✓	Overalls	
Ear protection (marked noise zones)		Eye protection (EN 166:2001)	✓
High visibility clothing (EN ISO 20471)	✓	Face Mask	
Specify colour Orange		Harness (To be provided by client)	

10.0 INITIAL CONDITIONS

10.1 The working area must be cleared to allow the crane assembly and lifting operations to take place in a safe manner without endangering personnel not directly involved in the lifting operations. All enabling works (by client / others) to be completed prior to crane arrival (cones to be placed in the location of crane). Site must be walked by supervisor to ensure there is no items that could damage/puncture crane tyres, client is responsible for any damage or punctures.

10.2 All personnel not directly concerned with the lift must keep out of the crane assembly and rigging areas. The working area should be cordoned off or otherwise secured against personnel entry.

10.3 The Lift Supervisor shall make himself known to all personnel (KHCH, client, other sub-contractors on site), and conduct a 'toolbox talk' prior to commencing operations.

10.4 Under no circumstances shall the crane be moved for lifting purposed if not under instruction of the Lift Supervisor.

10.5 All cranes to be left unattended for a period shall be left in safe condition (jib retracted or laid down if possible) with no load on the crane hook. Cranes shall be shut down and isolated as per manufacturer's instructions, secured and locked.

11.0 THE METHOD

PRELIMINARY

SITE ARRIVAL

11.1 The cranes with associated labour and tackle will arrive together on site at 11pm at Federation St. All personnel and tackle documentation shall be made available to the client via electronic tablet & email so to avoid using large quantities of paper. Site specific inductions carried out, RAMS briefed to all operatives and permits granted.

CRANE ASSEMBLY

11.2 Once the tram operator has given the instruction that tram lines are de-energized the crane will carefully proceed to designated lift area, barriers, walkways, road closure and lifting area segregation put in to place, outrigger mats to be installed under outriggers and crane position confirmed by lift supervisor.

The cranes will rig up, as per manufacturer's instructions by the crane driver, boom to be tele'd out to required length and configuration, slew and radius parameters will now been inputted. The supervisor will now check the correct configurations have been achieved as per RAMS.

If crane is to be rigged with fly jibs, 'super lift' and/or any other rigging attachments then all operators must sign off attached rigging statement.

SEQUENCE OF KNOWN LIFTS

11.3 There are a number of positions for the equipment / various chillers to be lifted from the laydown area and to the positioning area. Any lifts of a lesser weight and a lesser radius and are included in this Method Statement. The crane can be operated via remote controlled and the crane driver can be position on the landing area if desired so visual can be made of the load. Client to provide any specific safety equipment required for the working area.

METHOD OF LIFTING OPERATIONS

11.4 Operator will hoist down hook block to ground level.

11.5 Lifting tackle for executing lift will be placed on hook (As per tackle sketch below) and checked as correct by Lift Supervisor.

11.6 Hook of crane hoisted into air and slewed over the transport

11.6.1 Lifting tackle attached to lifting eyes via shackle, safety harness clipped fall arrest then on to hook block will be worn if no edge protection is available on the transport.

11.6.2 Once secure the slinger/Signaller will now instruct operator by means of 2 way radios to slowly hoist up to take the slack out of the tackle.

11.7 Slinger/Signaller will now "plumb" boom head of crane vertically above centre of gravity, taking caution and visual of above tram lines.

11.8 2 Tag lines will now be attached to load.

11.9 Slinger/Signaller will now instruct operators to slowly hoist No.1 chiller unit clear off the transport / laydown area.

11.10 Client will now confirm that lifting area is clear and secured against public entry.

11.10.1 With instructions from the slinger banksman via radio the operator will continue to hoist, tele in, boom back and slew as required, observing clearance between load, tram line pole, tram lines and boom at all times.

11.10.2 With instruction from the slinger the operator will continue the motions required to carefully position chiller No.1 in to required location as per the sketch.

11.11 Operations will cease once the chiller is fully lowered, weight released from tackle and secured by client.

11.12 Once confirmed with the client the slinger banksman will disconnect the lifting tackle from the chiller and the slinger can now instruct the crane operator to hoist the tackle clear from the chiller.

11.13 Slinger/Signaller will now instruct operators to slew & tele the crane anti clockwise and back to the area where the process 11.6.1 to 11.16 will be repeated for No.2 Chiller and positioning the ancillaries in the clients desired location within the working radius and capacity of the crane.

11.14 Associated equipment can now be lifted to and away from working area as per above, lesser the weight and lesser the radius only.

11.15 Wind speed must be monitored by the crane driver at all times and if the above figure is exceeded he will inform the crane supervisor immediately and if safe to do so the operation will come to a stop.

11.16 Upon completion crane will de-rig in reverse of manufacturers instructions, working area cleared and with confirmation from the client the crane and all associated labour will sign out and leave site.

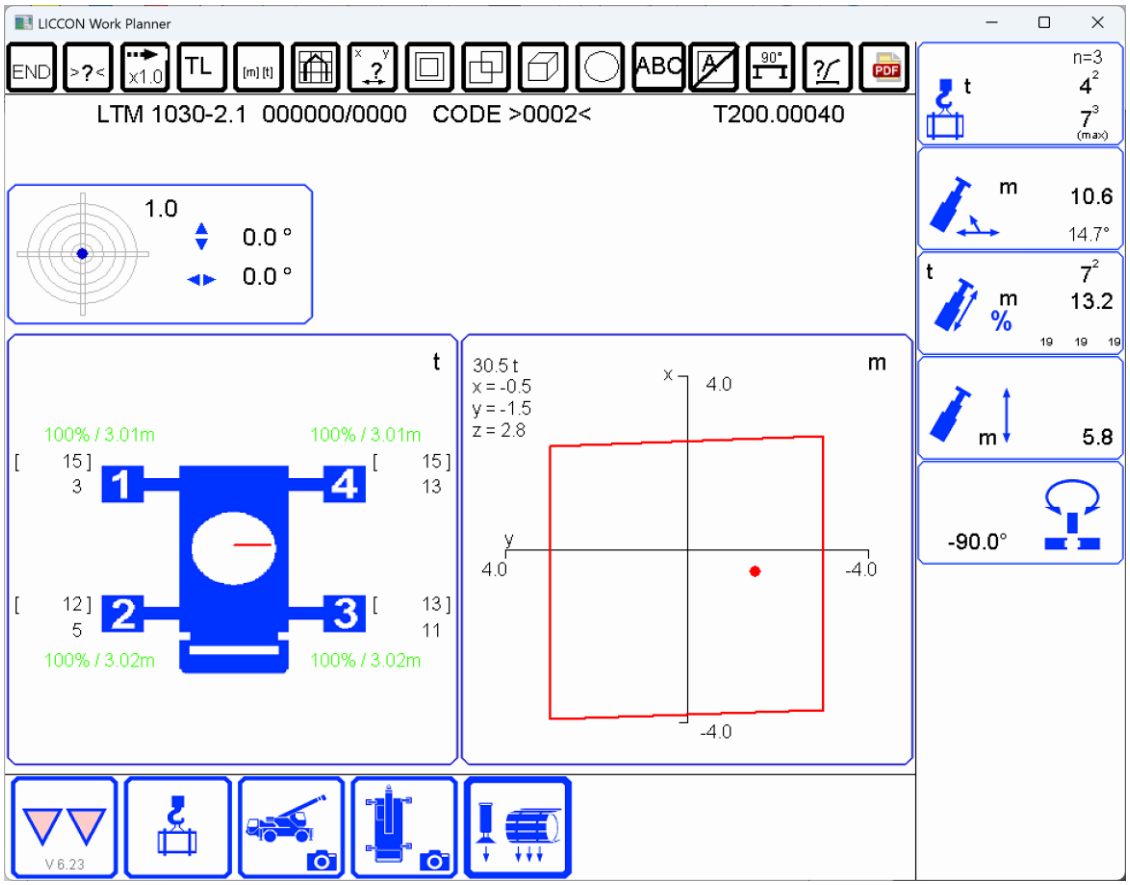
FINAL CHECKS

Note

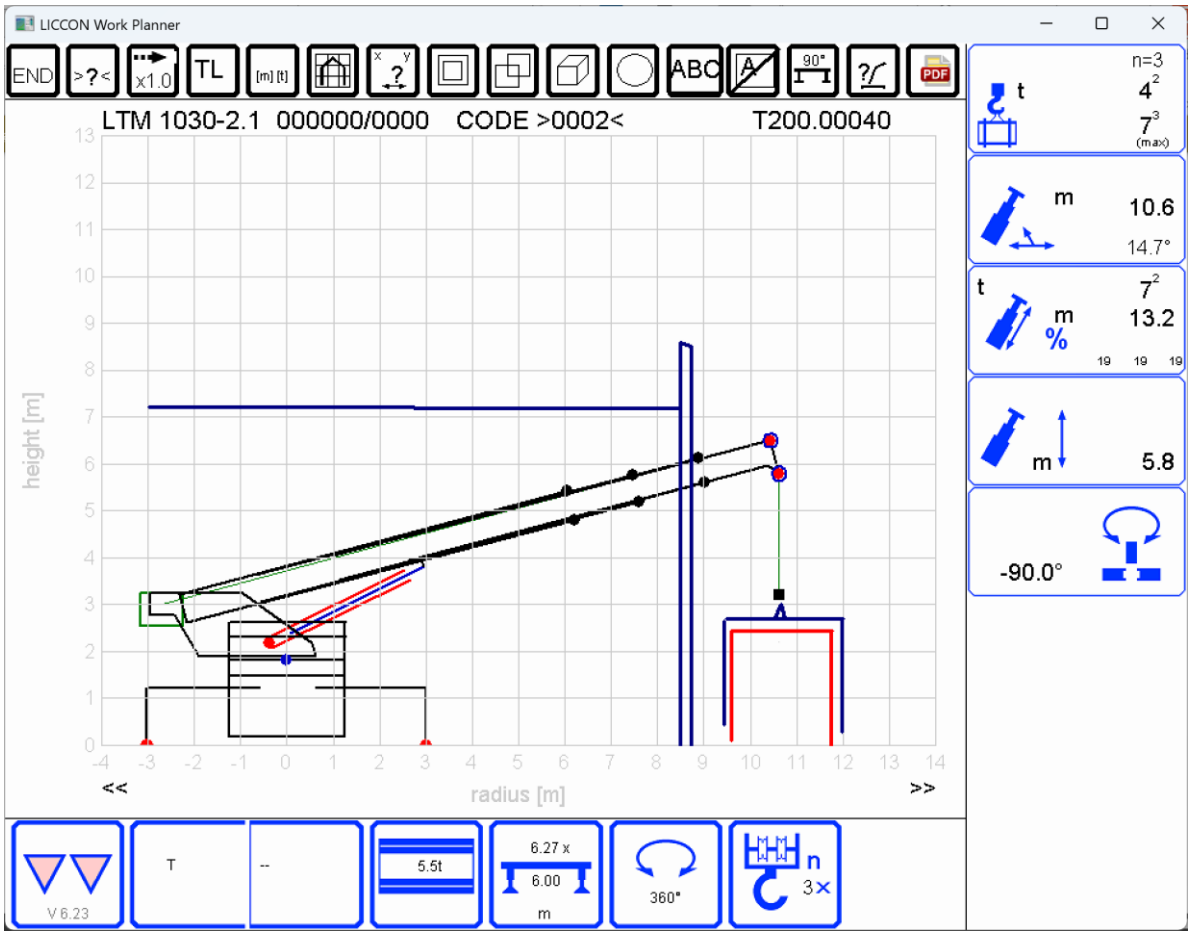
- **Lift Supervisor to confirm with crane driver correct crane codes and working limitations of height have been entered for the configuration required. (Including crane counterweight, tower angle / luffing jib length and outrigger base, full or intermediate)**

12.0 CRANE DIAGRAMS

. POINT LOAD DIAGRAM

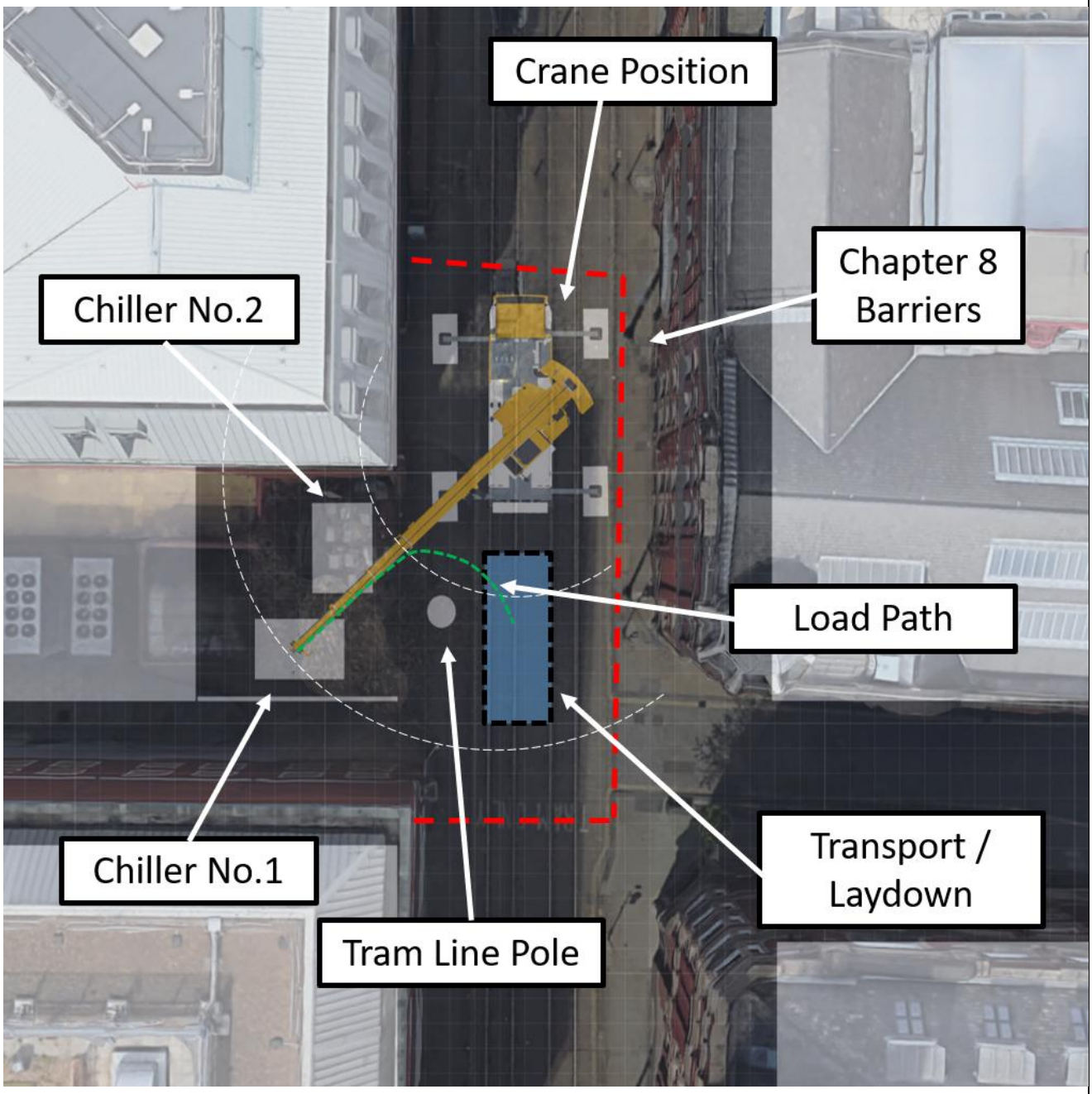


. SIDE EVEVATION DIAGRAMS

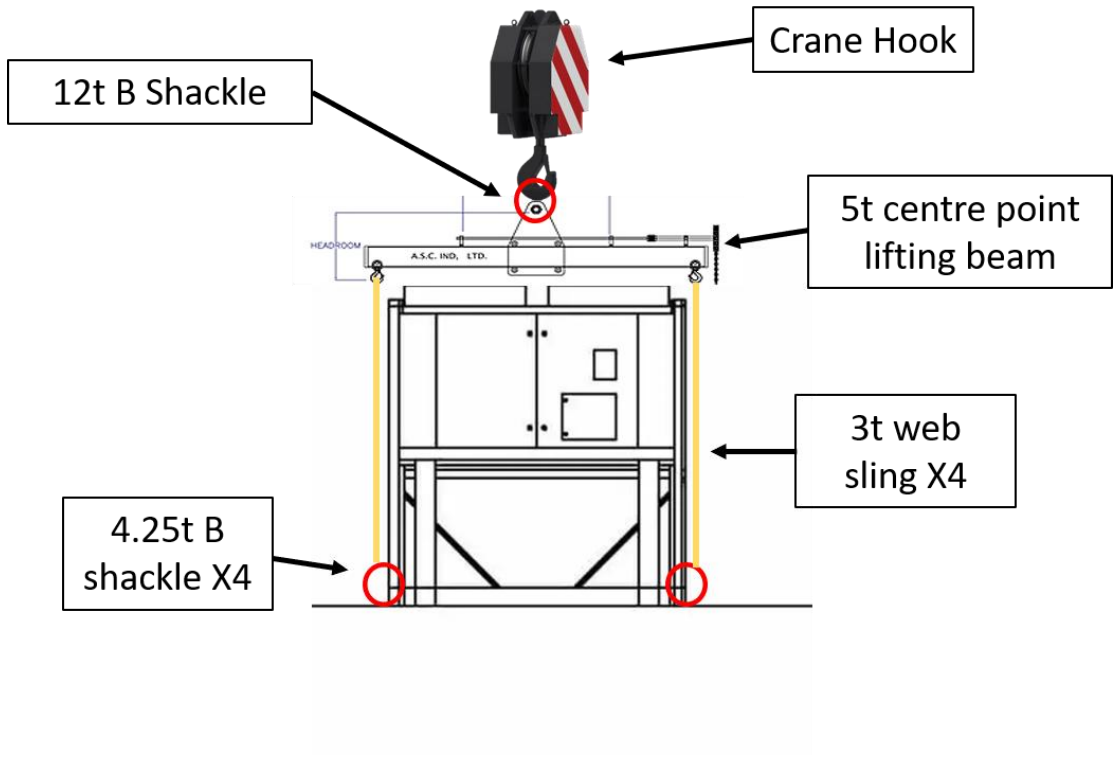


13.0

CRANE LOCATION SKETCH

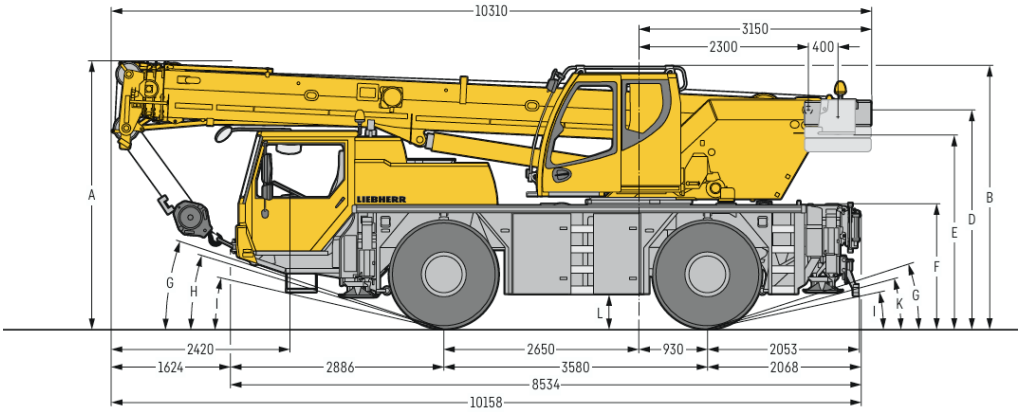


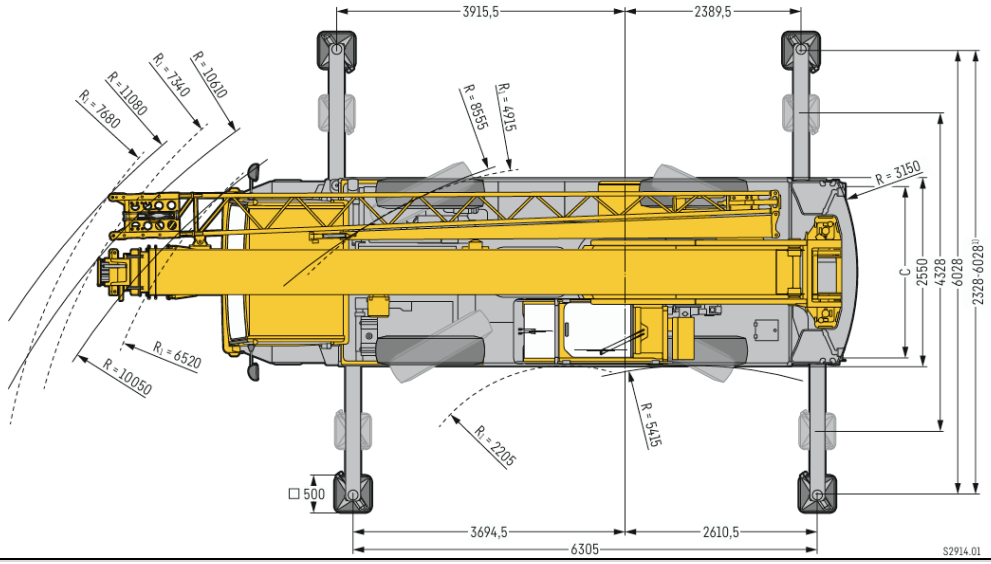
TACKLE SKETCH



LIEBHERR LTM-1030 2.1







14.0 SITE SPECIFIC RISK ASSESSMENT REGISTER

The Site Specific Register grid converts the attached risk assessments into working site specific documents

AST NO	ASSESSMENT ACTIVITY	MAXIMUM NOS INVOLVED	FREQUENCY OF ACTIVITY	DURATION OF ACTIVITY	PUBLIC INTERFACE LIKELY
1	Ground Conditions	**3**	**Frequent**	**1 Day+**	**No**
2	Access to and Egress from Site	**3**	**Twice**	**1 Day+**	**Yes**
3	Underground Services	**3**	**Frequent**	**1 Day+**	**No**
4	Plant Operations	**3**	**Frequent**	**1 Day+**	**No**
5	Working at Heights / Crane	**3**	**Frequent**	**1 Day+**	**No**
6	Setting up Cranes	**3**	**Once**	**1 Day+**	**No**
7	Loading and Unloading Vehicles	**3**	**Frequent**	**1 Day+**	**No**
8	Use of Lifting Gear	**3**	**Frequent**	**1 Day+**	**No**
9	Use of Ladders	**3**	**Frequent**	**1 Day+**	**No**
10	Use of Hand Tools	x	**x**	x	**x**
11	Work on Scaffold Platform	3	**Frequent**	**1 Day+**	**NO**
12	Manual Handling Operations	**3**	**Frequent**	**1 Day+**	**No**
13	Works near Power Lines	X	X	X	X
14	General Works - Environmental	**Clients responsibility**	**X**	**X**	**X**
15	Noise	**3**	**Frequent**	**1 Day+**	**No**
16	Dealing with Fire	**Clients responsibility**	**X**	**X**	**X**
17	Burning/Cutting/Welding/Use of L.P.G.	X	X	X	X
18	Hazardous Materials	X	X	X	X
19	Disposal of Waste Materials	X	X	X	X
20	Handling and Storage L.P.G.	X	X	X	X
21	Near Miss Action	**3**	**Frequent**	**1 Day+**	**No**
22	Works Near and Around Electricity	X	X	X	X
23	Protection of the Public	**Clients responsibility**	**X**	**X**	**X**
24	Heat Exhaustion/Climate Conditions	X	X	X	X
25	Storage of Oils and Flammable Fuels.	X	X	X	X
26	House Keeping	**3**	**Frequent**	**1 Day+**	**No**
27	Working Near water	X	X	X	X
28	Working near rail lines	x	x	x	x
29	Car Parking and Visitors	X	X	X	X
30	Movement of Plant - Yard Area	X	X	X	X
31	Access to the Jetty	X	X	X	X
32	Lifting over Portacabins	X	X	X	X
33	WAH Man Riding Baskets	3	3	1 Day	No
34	Working at Height / Site	**3**	**Frequent**	**1 Day**	**No**
35	Working inside Hangers/Buildings	X	X	X	X

15.0 ON SITE CHANGES

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16.0 RISK ASSESMENT

RISK RATING PRIORITY

MANAGEMENT OF HEALTH & SAFETY AT WORK REGULATIONS 1999

Ken HarropCrane Hire Risk Assessments are made for the purposes of the above regulations and do not incorporate assessments which may be required by other relevant statutory provisions.

The assessments reflect conditions observed and information provided on the day of assessment. Where reference is made to specific regulations or sources of guidance these must be consulted for definitive information on the required control measures.

The Risk Evaluation (RE) system used, takes account of many factors to give a relative indication of priority the main being, likelihood of harm and severity of injury.

S = Severity Rating	L = Likelihood of Occurrence	
5. Multiple Fatality	5. Almost Certain:	90% +
4. Fatality	4. Probable:	50 – 90%
3. Specified Injury (RIDDOR)	3. Possible:	10 – 50%
2. Minor Injury	2. Remote:	1 -10%
1. Negligible	1. Improbable:	0-1%

RR = Risk Rating

Severity						
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5

10 >	H	**High risk,** **Not acceptable, shall be reduced by means of additional controls.**
4 - 9	M	**Medium risk** **Shall be reduced as far is reasonably practicable.**
1 - 3	L	**Low risk** **No further action required**

S = Severity with existing controls in place. **Score 5-1**	**L** = Likelihood with existing controls in place. **Score 5-1**	**R** = Risk rating with existing controls in place. **Score L/M/H**
S* = Severity with specified additional controls in place.	**L*** = Likelihood with specified additional controls in place.	**R*** = Risk rating with specified additional controls in place.
Evaluation: R & R* are identified by multiplying the **Severity** and **Likelihood** scores and translating them into a **Risk Rating** using the formula above.		

No	Potential Hazard	Potential Consequence	Initial Risk			Additional Control Measures Physical Actions	Residual Risk		
			S	L	R		S *	L *	R *
1	Contact/collision with live traffic/site traffic.	• Damage to property • Damage to equipment • Injury to personnel	4	4	H	• Crane booked in to for site prior to arrival. • Client/PC to ensure route is clear for crane to access site prior to arrival. • Traffic marshal to attend to crane at site. • PC/Client to ensure and maintain clear access routes at all times. • Flashing beacon and audible reverse alarm present on all cranes. • Designated crane position detailed in lift plan and crane to set up in the designated position as agreed. • Convex mirrors installed to assist driver in overall vision.	4	2	M
2	Rigging and de-rigging of cranes.	• Damage to property • Damage to equipment • Injury to personnel. • Slips, trips and falls. Injury's caused by falls from height	4	5	H	• Appointed person to select the best orientation of the crane during site survey. • All activities will be carried out in line with this lift plan, familiarization training and manufactures instructions. • Crane Operator shall be trained and familiar for the make and model operated. • Pre-use/daily checks to be completed by Crane Operator. • Crane Operator shall be SQEP only.	4	2	M
3	Manual handling and placement of Mat System.	• Slips, trips and falls • Musculoskeletal injuries due to poor manual handling techniques • Finger entrapment • Damage to equipment • Damage to property	3	5	H	• Working area to be cleared at all times to ensure good house keeping. • Lift team to assess the route and conditions underfoot prior to lifting mats. • Transport vehicle to be positioned next to cranes rigging area to reduce the distance in which the mats are to be carried. • Two person lifting required – self weight of mats 54Kg. • Handles affixed to each end of the mat are to be visually inspected prior to lifting. • Lift team to utilize good manual handling techniques and utilize legs for lifting whilst keeping their back straight. • Avoid twisting the body whilst lifting. • Mats to be carried as close to the body as possible. •	3	1	L
4	Inadequate lighting.	• Likelihood of injury or damage to equipment from any other Hazard increased	3	3	M	• When working in hours of darkness or dark areas suitable lighting must be provided. • Work will not continue if adequate lighting is not provided. • Additional care to be taken as shadows can occur.	3	1	L

5	Ground subsidence under the crane.	• Crane unstable • Possible overturning • Damage to property • Damage to equipment • Injury to personnel	5	3	H	• Ground conditions and structure investigated and tested if required. • Client to ensure the ground is prepared to suit axle loads and ground loadings imposed by crane and any support vehicles as supplied. • Outrigger loadings determined prior to crane arrival on site. • Maximum ground bearing pressure ascertained prior to crane arrival on site and issued to Appointed Person. • Crane set up in accordance with lift plan. • Outrigger mats utilized and installed where detailed in the lift plan. • Works cease, and AP notified if crane set up cannot be as per the lift plan. • Appointed Person to visit site and assess the route the crane will travel and the rigging area. • Crane not to be located above any known services or voids.	5	1	M
6	Underground services.	• Damage to underground services (potential explosion) • Damage to property • Damage to equipment • Injury to personnel. • Crane unstable. • Possible overturning	4	4	H	• Client to ascertain if underground services are present at location of crane set up. • Client to refer to relevant service drawing(s) and provide these to the Appointed Person at the planning stage. • Crane not to be set up over known services. • If services cannot be moved and pose a risk, Client to ensure services are removed or isolated prior to crane set up. • Operations cease if unidentified services are located prior to crane set up.	4	2	M
7	Incorrect position of crane(s).	• Increase of radius and crane utilization • Damage to property • Damage to equipment • Injury to personnel	4	4	H	• Segregate area where the 600mm clearance cannot be maintained using suitable and sufficient barrier system. • Lift plan referred to for correct positioning and set up of crane. • Lift supervisor to correctly measure the location and mark out outrigger positions for outrigger location and correct crane setup.	4	2	M
8	Overloading of Lifting Equipment.	• Unsafe condition for crane • Collapse of crane • Damage to property • Damage to equipment • Injury to personnel	5	2	H	• Check weight of items to be lifted, weigh items if necessary. • Carry out a trial lift. • Ensure radius is correct. • Check other lifting activities from drawing. • Certify cranes and lifting tackle. • Rigging drawings will be prepared for certain heavy lifts to ensure that all factors are taken into consideration. • Ensure correct crane configuration as detailed in lift plan is used. • Crane operator to ensure load indicator is present and functional prior to lifting operation commencing. • Pre-use checks carried out on mobile crane prior to use.	5	1	M

9	Plant Coordination.	• Damage to property • Damage to equipment • Injury to personnel	5	3	H	• Exclusion zone to be established by lifting team and PC to provide interface to prevent unauthorized entry from other plant and equipment, where access is required, plant operators must wait outside the exclusion zone and await permission from the Lift Supervisor to enter. • Where multiple items of Lifting Equipment are present on site the PC must provide a Crane Coordinator to oversee the works and detail the SSOW to prevent Collison or oversailing between items of Lifting equipment and/or other tall plant.	5	1	M
10	Incorrect reeving of hook block.	• Damage to sheaves • Potential for failure of hoist rope. • Operative injury due to insufficient protective equipment Unsuitable capacity	5	4	H	• All non-essential personnel will be restricted from the rigging area. • All operations will be conducted in accordance with the manufacturer's instructions. • The Lift Supervisor will monitor this operation at all times. • Sheave securing pins are to be positioned to prevent hoist rope jumping. • Hoist drum must be checked prior to use to ensure the hoist rope is correctly laid. • SLI to be set with the correct number of falls that are in use. • Anchor termination is to be installed as per manufactures instructions ensuring all pins are correctly installed. • Anti-two block device to correctly fitted and function tested.	5	1	M
11	Failure of Lifting accessories.	• Possible crane failure. • Damage to property • Damage to equipment Injury to personnel	5	4	H	• Check all lifting accessories and certify ample capacity. • Prior to use accessories are selected to ensure it has the safe working capacity and is suitable. • All lifting accessories to be inspected prior to use and inspections recorded. • Lifting accessories as detailed in the lift plan are to be used as a minimum. • Lifting area inclusive of the crane and load location(s) are to be barriered by the client and all non-essential personnel removed.	5	1	M
12	High Wind.	• Additional loadings imposed on crane • Risk of overloading • Risk of increase radii • Damage to property Damage to equipment Injury to personnel.	5	2	H	• Wind speed is to be monitored throughout the lifting operation. • Cranes are fitted with anemometers on booms (where lower capacity cranes are operational a hand-held anemometer may be used in lieu). • Critical lifts will have a wind speed limiting factor. • No lifting in high winds. • Wind speeds shall be limited to that as detailed within the lift plan. • No works to proceed if wind is above the max stated value	5	1	M

13	Adverse weather.	• Damage to property • Damage to equipment • Injury to personnel • Risk of increased load weight • Slips trips and falls	5	2	H	• If surfaces are slippery and poses risk to safety due to slips and falls, area should first be gritted or cleared to reduce the risk. • Working at height should be kept to a minimum and assessed by the workforce prior to works commencing. • In extreme circumstance, works in adverse weather of this nature should cease. • Works to cease if lightning present. • Thorough re-examination of crane carried out if crane struck by lightning. • Out of service procedure to be followed as detailed within the lift plan and manufactures manual. • Load to be visibly checked to ensure water/ice has not added additional weight.	5	1	M
14	Structural failure of crane or components.	• Damage to property • Damage to equipment • Injury to personnel Collapse of crane	5	3	H	• Crane undergoes 12 monthly LOLER thorough examination (6 monthly if lifting of persons) with report checked and supplied to site. • The crane is to be regularly inspected by a competent person to ensure there is no deterioration in the structure or lifting ropes and records made. • Operator daily / weekly checks to be completed prior to starting work. • Any defects reported, and crane taken out of service if safety critical defect reported.	5	1	M
15	Failure of radio communication.	• Damage to property • Damage to equipment Injury to personnel	4	3	H	• All communications will be spoken in English. • High-quality two-way radios to be utilised with dedicated channel. • Lift team to be familiar with the use and controls of Two-Way radios being used. • Pre-use radio check must be completed at the start of each working shift. • Continuous communication during lifting operations, in the event of a communication breakdown, operations must be stopped until the communication has been restored.	4	1	M
16	Falls from height by Slinger/Signaler working to attach or release lifting accessories.	• Injuries to personnel Risk of fatality	4	4	H	• Operative to wear full body harness and ensure inertia block is secured to anchorage point on harness at all times during these works. • Harness conforms to EN 361. • Harness inspected prior to use by operative. • Harness undergoes thorough maintenance inspection every 6 months. • Inertia reel undergoes 6 monthly thorough examination. • Ladder to be footed and fit for purpose.			

17	Slip, trips and falls.	Injuries to personnel	3	3	M	• Good housekeeping prevents materials lying around. • Clearance of spills of material. Dedicated access routes to be used.	3	1	L
18	Moving Machinery parts on crane structure.	Injuries to personnel	3	3	M	• Use of guards on all machinery with moving parts. • Only trained and competent personnel to access crane/machinery deck. • No personnel to be positioned near moving machinery without the prior knowledge of the crane operator. • No maintenance work to be undertaken without a suitable risk assessment being in place.	3	1	L
19	Lifted load contacting with other structures.	• Possible damage to item being lifted • Damage to other structures or equipment, Possible consequential injuries to personnel	3	2	M	• Load to be controlled by qualified Slinger/Signaller. • During the lift the item will be controlled by tag line(s) and the lift supervisor will be in contact with the crane operator to control the lift at all times. Any potential clashes with other structures will have been identified during the planning of the lift, and steps taken to ensure no contact was made.	3	1	L
20	Working on elevated areas.	• Falls from height • Injury to persons below • Risk of fatality	4	4	H	• Suitable parapet installed on roof which acts as edge protection. • Edge protection must be present with minimum 950mm coverage. • Intermediate guard rail and toe boards with spaces no more than 470mm in between top rail and toe board. • Toe board present to prevent from falling items. • Operatives trained in working at height works. • Loose materials lashed/secured on roof where required/deemed necessary. Safety netting must be installed beneath where working in an aera with voids.	4	1	M
21	General Lifting operations.	• Injuries to personnel • Slips, trips and falls due to poor housekeeping • Damage to property Damage to equipment	3	2	M	• All lift team members will be trained standards with certification available on site to view. • Toolbox talk briefed to all lift team and any of the client's personnel who will be working within the lift area during the lifting operations. • During all lifts the area around the lift will be cordoned off, and only nominated persons allowed to enter the area. • All tools and equipment to be kept clear of all access routes. • Slings/lifting accessories hung up after use. • Tag lines to be used for load control.	3	1	L

22	Contact crushing injuries from pedestrian/vehicular interactions.	• Injury to personnel Injury to visitors	4	3	H	• Client to ensure segregation of pedestrians and vehicle movements with clear routes for each. • All site personnel to wear hi-vis clothing as per site requirements. • Mobile plant/crane to have audible reverse alarm and flashing beacon. • Convex mirrors installed on crane to assist in overall vision. • Lift team to ensure pedestrian routes are followed at all times and no shortcuts to workface are taken. • Banks man present to assist in plant/crane movements. • Client to provide suitable signage for site. • Induction undertaken detailing site vehicle/pedestrian routes. • Barriers erected around crane area to restrict pedestrian access. Client/PC to ensure. • Signage installed on barriers. • Works to cease if pedestrians enter lifting zone without authorisation.	4	1	M
23	Manual handling.	• Cuts / abrasions / dermatitis Musculoskeletal injuries due to poor manual handling techniques	3	4	H	• Operatives to assess the load prior to lifting. • Cut level 3 minimum for handling sharp objects/rigger gloves. • Gloves conform to EN 388. • Operatives to ensure good hygiene and wash regularly, utilise protection cream. • Mechanical lifting aids to be used where possible (sack truck/pallet truck/FLT). • Operatives to adopt the TILE assessment prior to lifting loads (Task, Individual, Load, Environment). • Ensure route is planned prior to lifting commencing. • Protect sharp edges with packing where possible. • Bend knees and keep back straight. • Break down load wherever possible into smaller manageable units. • 2 man lifting where required. • Steel toe caps and midsole protection footwear worn to protect from dropped objects on feet. • Operatives instructed not to lift more than they are capable of.	3	2	M

17.0 ENVIROMENTAL RISK ASSESMENT

No	Potential Hazard	Potential Consequence	Initial Risk			Additional Control Measures Physical Actions	Residual Risk		
			S	L	R		S*	L*	R*
1	Noise during mechanical operations.	• Impaired hearing after sustained exposure. • Nuisance to Neighbours around working area or along route.	3	2	M	• Non-essential personnel to keep away from noisy operations. • Personnel to wear hearing protection around noisy operations. • Where applicable noise assessments to be carried out and recorded. • Road movements through populated areas planned and scheduled so as to minimise noise pollution.	3	1	L
2	Oil Spills from plant and equipment.	• Damage to property, environmental effects. • Contamination of storm drains / waterways	4	3	H	• Oil spill kits and absorbent granules to be carried on the crane(s). • Employees to follow instructions on pack and collect up contaminated waste afterwards for disposal as described below. • Drip trays to be used where applicable. • Positions of drains/waterways to be considered during planning of work. • Daily checks to be completed by operator(s). • Any leaks will see the lifting operations halted and engineer summoned.	4	1	L
3	Hose/Pipe rupture.	• Leakage of hydraulic oil. • Leakage of engine oil • Leakage of coolant.	3	2	M	• Each vehicle to carry Spill kit to soak up any oil spilled on site. • Daily checks to be completed by operator(s). • Employees to follow instructions on pack and collect up contaminated waste afterwards for disposal as described below.	3	1	L
4	Disposal of General Waste.	• Litter, attraction of rodents, • Untidy worksite	3	2	M	• Brief all personnel during induction on correct disposal method and location of bins. • Ensure all waste skips, containers are secure and covered where appropriate. • Make arrangements with site host if required and ensure all waste is collected by a registered waste carrier and taken to licensed disposal site (check licenses/registrations). • Maintain appropriate records of disposal.	3	1	L
5	Fumes, Exhausts and Odours.	• Air Pollution, respiratory effects to personnel	3	2	M	• No fires on site. • Do not run or idle engines if not needed. • Exhausts should only be run in open and well-ventilated areas. • Equipment to have been recently serviced. • Daily checks to be completed by operator(s).	3	1	L