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METHOD STATEMENT / RISK ASSESSMENT FOR THE ERECTION OF JOST JL216 FOR CHARLES EDWARD

9 NESTLES AVENUE, HAYES, UB3 4SA

Date of operation: TBC

Revision Table

Rev	Title	Amendments

Tower Crane to be Erected	
Tower Crane Make / Model	Jost JL216.16
Site Address	9 Nestles Avenue, Hayes, UB3 4SA
Tower Crane Reference e.g., TC1	N/A
Tower Height	42m
Jib Length	50m Jib section (1/2/3/4/6)
Base Type	TS212 Expendable

Mobile Details	
Mobile Crane to be used	LTM1300
Mobile Crane Supplied by	King Lifting

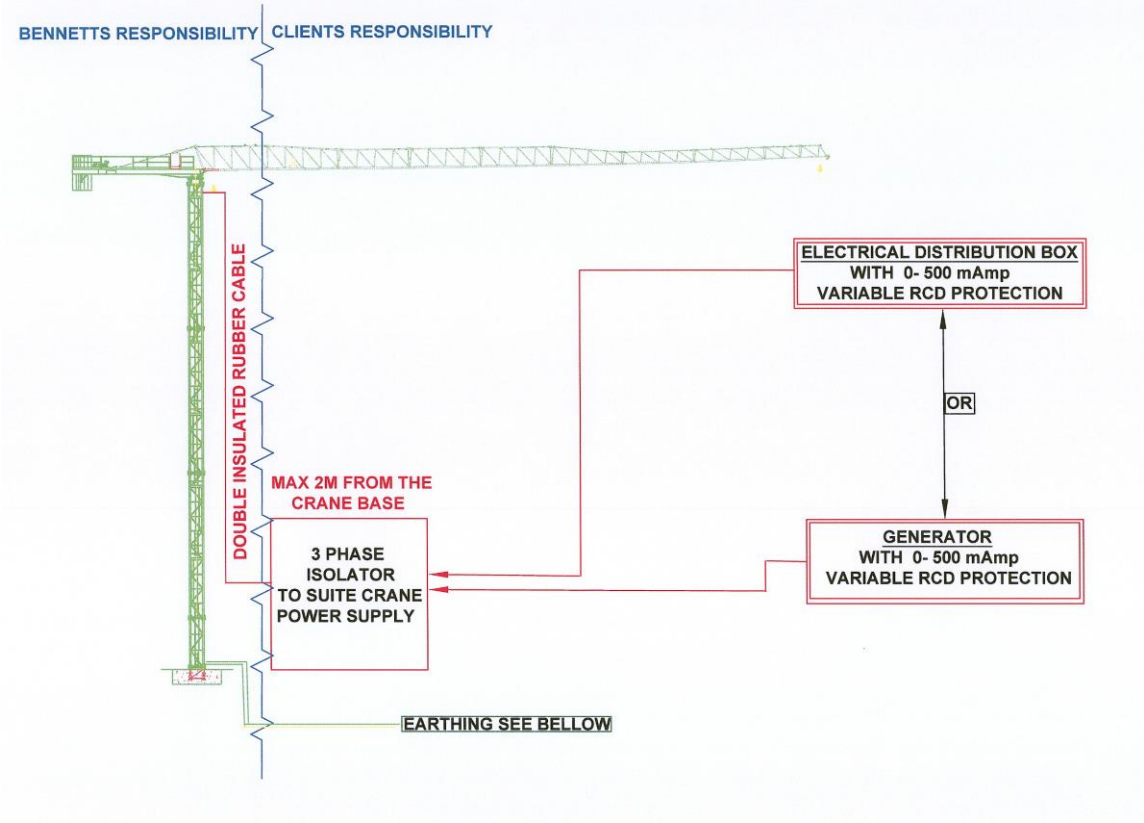
Transport	
Haulage Company for transportation of Tower Crane	Metcalfe Transport
Traffic Management arranged by	N/A

Emergency Contacts		
Bennetts Cranes Office	01453 811754	
Stewart Woods	07760753522	
Site Contact	Shaun Valentine - 07584254644	
Mobile Crane Company Contact No.	01895 446443	
Haulage Company Contact No.	01453 890525	
Document Prepared By. Appointed Person CPCS NO. 334004	Stewart Woods CPCS No: 334004	
Document Checked By. Appointed Person CPCS No: 40872690	Reece Kingham CPCS No: 40872690	

Electrical Requirements

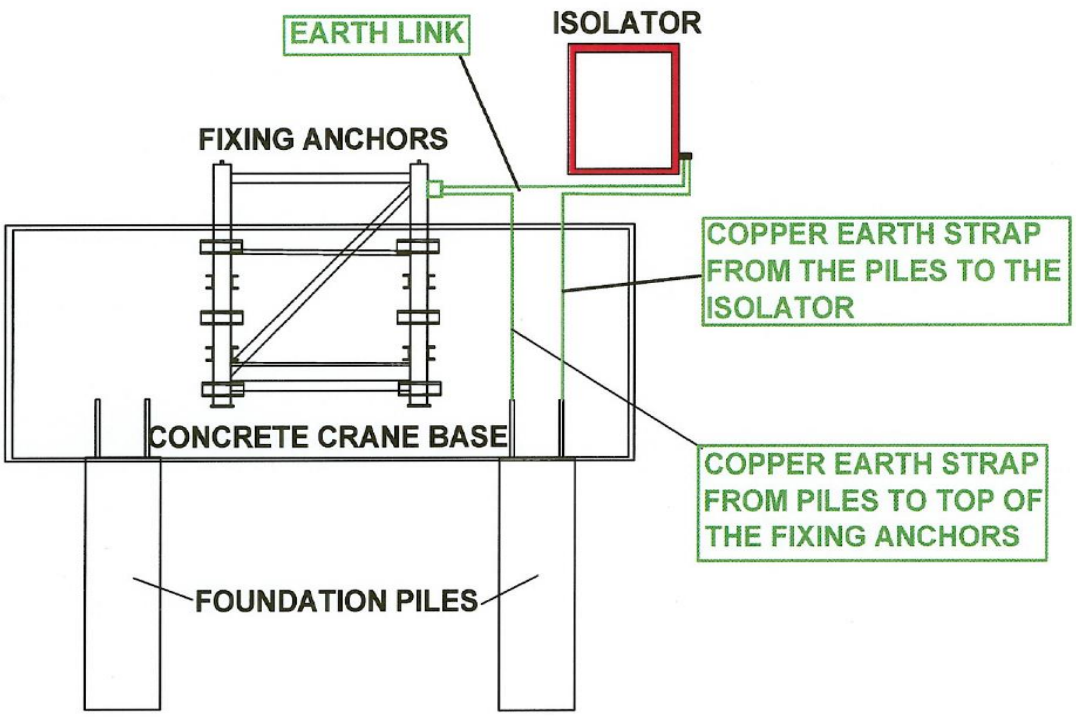
The Client	Charles Edward	Site Location	9 Nestles Avenue, Hayes, UB3 4SA
Tower Crane Make / Model		Jost JL216.16	
Tower Height	42m	Jib Length	50m
Tower Crane Reference e.g., TC1		N/A	
Mains Supply required in kVA		125	
Generator size required in kVA		250	

The 3-phase power supply for the tower crane terminating in a water proof isolator 400x400 box installed at the crane base. With over-load/RCD 0-500ma adjustable earth leakage protection. This must be in place prior to the day of the tower crane installation to prevent any hold ups, all electrical Installations should be to BS7671 18Th Edition Wiring Regulations. There must also be a 110v supply at the crane base at the time of erection. The Client is responsible for connecting a suitable earth and lightening conductor to the crane base on site.



If the site is not ready on the day of the operation, Bennetts Cranes' onsite AP will abandon the operation and a suitable date will be arranged for the operation to take place, in this event all costs incurred will be met by the Client with no exceptions.

Tower Crane Foundation Earthing Requirements and Sign Off



Earthing and lightening protection is the responsibility of the client and must be in place prior to the installation of the tower crane.
If the crane base foundations do not incorporate foundation piles then an appropriate earthing point must be found near to the crane base location.

I hear by confirm that:

1. The crane has been correctly earthed as per the above instructions
2. A suitable lightening conductor has been connected to the crane base
3. An adequate power supply, as per the above instructions, will be in place prior to Bennetts Cranes attending site to erect the crane.
4. If it is not possible to erect the crane due to an insufficient power supply/connection then we, the Client, will incur all abortive costs involved.
5. If a fault occurs with the crane as a result of insufficient earthing and lightening protection then we, the Client will incur all associated repair and maintenance costs.

Name		Position	
Signed		Date	
Client	Charles Edward	Site Location	9 Nestles Avenue, Hayes, UB3 4SA
Tower Crane Make / Model		Jost JL216.16	
Tower Height	42m	Jib Length	50m
Tower Crane Reference e.g., TC1		N/A	

***This page must be fully completed and returned to Bennetts Cranes prior to the erection of the tower crane. Failure to return this document will delay the erection process.**

Mobile Crane Ground Bearing Capacity Form

Mobile Crane Ground Bearing Capacity Form requires a signed declaration from the Client by a Competent Person, stating that the ground required for the mobile crane has been prepared and is of adequate strength to support the shown imposed loads.

Client	Charles Edward		
Site Location	9 Nestles Avenue Hayes UB3 4SA		
Tower Crane Make / Model	Jost JL216.16	Tower Crane Reference e.g., TC1	N/A
Site Drawing Ref.		216.070622-SWEP	
Mobile Crane Make / Model		LTM 1300	
Boom Length to be Used		74.3m TS 46-100-100-100-100-100	
Rigger Configuration		8.89m x 8.30m	
Counter Weight		76000Kg	
Max. SWL at Max. 15m Radius		15600Kg	
Max. Load at Max. 15m Radius		10000Kg (Slewring/Cab, hook block and tackle)	
Capacity (%)		64%	
Max Outrigger Point Load		57000Kg	
Mat Size and Bearing Pressure		4m x 1.8m = 7.5m^2	
Distributed Load		7600Kg/m^2	
Short Rig Loadings		45000Kg	

I hereby confirm that:

a) I have consent on behalf of the Client to sign off the Mobile Crane Ground Bearing.
b) The area determined for the mobile crane in this method statement has a ground bearing capacity in excess of the specified distributed outrigger loads.
c) The route to that position can withstand an axle load of 16 Tonne.
d) The correct position of the mobile crane and centre of slew shall be appropriately marked and identified to the Appointed Person on the day of the operation.
e) I have read and understood my duties and responsibilities within this method statement and risk assessment and confirm that the site will be in a suitable state at the time of erection and if Bennetts's attend site and cannot erect the crane because these responsibilities have not been fulfilled, we will accept all consequential abortive costs.
f) I also understand that we, the Client are responsible for the security of the mobile crane whilst on site, this includes if the mobile crane needs to stay overnight in the event of the operation being more than one day.

Client Name		Position	
Signed		Date	

***This page must be fully completed and returned to Bennetts Cranes prior to the erection of the tower crane. Failure to return this document will delay the erection process.**

Arrival on site

All copies of the erections teams CSCS / CPCS cards will be available for inspection on the day of the erection.

All lifts will be carried out using trained competent Slingers / Signallers and will be supervised by a trained competent Lift Supervisor.

Copies of all lifting accessories are available upon request from the Client.
Parking on site will be required for 4 vehicles during the erection procedure and a minimum of 2 vehicles when any maintenance is required.
The Client is responsible for ensuring that a site induction is completed, welfare facilities are available and the duties required under CDM Regulations, as minimum, for Principal Contractor are complied with.
Prior to any works an exclusion zone must be put in place by the client. This is to ensure any persons not involved in the operation including members of the public do not enter the working area. All other site works are to be stood down within the exclusion zone. The exclusion zone is to be increased by the Client when the jib is installed, which would have been communication during site visits and is clearly shown on the Site Drawing.
The client is to provide a Competent Banksman to control traffic and plant movements at all times. Bennetts Crane's operatives to control vehicle movements within the exclusion zone.
The tower crane is to be erected using a mobile crane, which will arrive on site at 0700 AM on the day of the operation. The mobile crane will be directed to the rigging area, assume it's working position (see drawing for mobile crane position) and begin the mobile crane rigging procedure.

Bennetts Cranes' personnel will wear the below PPE whilst on site: -

Company Overalls -	EN Number - 471
Hard Hat -	EN Number - 397
Gloves -	EN Number - 388
Boots -	EN Number – 20345
Safety Glasses (Task specific)	EN Number – 166
Full body Harness	EN Number -358 & 361
Double Lanyard with shock absorber	EN Number – 355 & 354
Snap Hooks	EN Number – 362
Face mask / covering	

*Full body harnesses with double lanyards, at all times when on the A frame or walking the jib. This is to protect them from falls from height when not protected by hand rails or the crane structure. The lanyards will be clipped onto the jibs running lines or the crane structure.
*Where it is not possible for operatives to remain 2m apart the appropriate PPE will be worn

All works shall be carried out in accordance with the current legislation and Codes of Practice: -
Health and Safety at Work Act 1974
Lifting Operations and Lifting Equipment Regulations 1998
Provision and Use of Work Equipment Regulations 1998
The Electricity Regulations at Work 1989
The Management of Health Safety at Work (Amendment) Regulations 1999
Personal Protective Equipment (Enforcement) Regulations 2018
Manual Handling Regulations 1992
The Work at Height Regulations 2005
Control of Substances Hazardous to Health Regulations 2002
Construction, Design and Management Regulations 2015
BS7121 Part 1, Safe Use of Cranes 2016 BS7121 Part 2, Safe Use of Cranes 2016
BS7121 Part 3, Safe Use of Cranes 2017 BS7121 Part 5, Safe Use of Cranes (Tower Cranes) 2019
Environmental Protection Act 1990
Waste (England and Wales) Amendment Regulations 2014
ISO 4309 – International standard Cranes – Wire Ropes- Care and Maintenance, inspection and discard

Mobile Crane Rigging Procedure

The Crane will be rigged by trained competent personnel and in accordance with the Manufacturer's specifications, estimated rigging time 1-2 hours
The Mobile Crane operator and Slinger / Signaller will agree communications before the rigging of the Mobile Crane. Radios for the operation supplied by Bennetts Cranes.
All radios when working at height are to be securely held within the appropriate radio holster and slung over the shoulder to prevent the radio falling from height. A wind speed check will be carried out by the Mobile Crane Operator to ensure it is safe to start lifting.

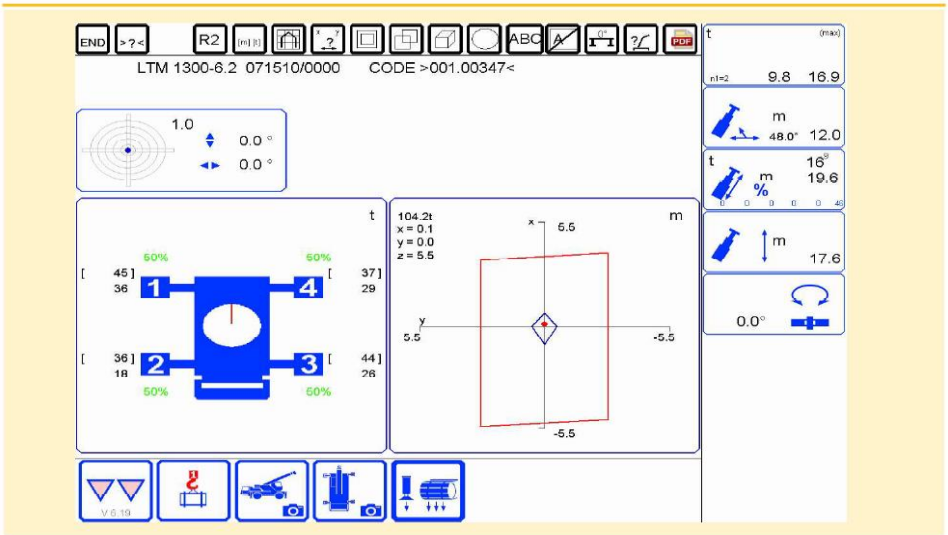
Operations will cease if winds are higher than 9.8 m/s.

1 Ensure the Erection area is cleared sufficiently to permit the safe assembly of the Crane.
2 Release outriggers, securing ties and attach pans, set to short rig.
3 Disconnect hook block from travel position, raise main boom, and de-activate all slewing locks.
4 Unload and position outrigger mats (4m x 1.8m)
5 Fully extend riggers and pin, extend jacks and level crane. (8.89m x 8.3m)
6 If required load ballast from ballast lorry to ballast carrier. (76000Kg)
7 Raise main boom to operating position
8 Extend main boom to operating length and pin (74.3m)
9 Check R.C.I. is correctly programmed; all safety devices and limit switches are operating correctly.
10 Crane ready for work.

Note:

a) Dis-assembly is the reverse of the above procedure.
b) The above is supplied for information only.
c) The operators of the mobile crane are trained in the erection and dismantle procedures and are provided with an operating manual that defines in more detail the exact procedures they were trained in and must follow.
d) All personnel except the Lifting Team must comply with the exclusion zone during the Erection operation and Dismantle of the Crane.

This information is a guide only and does not supersede the manufacturer's rigging instructions.



bennetts
TOWER CRANE PROFESSIONALS

Lorry Loading List

The Client	Charles Edward	Site Location	9 Nestles Avenue, Hayes, UB3 4SA
Tower Crane Make / Model	Jost JL216.16		
Serial Number	TBC	Plant Number	TBC
Tower Crane Configuration	42m tower 6m TS212, 50m jib (section 1/2/3/4/6)		

Date(s) Loaded	

Load No.	Trailer No.	Time	Load Description	Loader Signed	Supervisor Signed
1		0900	2 x TH20.3, platforms		
2		0930	2 x TH20.3, Ballast Carrier, hook block		
3		1000	2 x TH20.3,		
4		1130	1 x TH20.3, Slewring, Cab		
5		1230	Short A-frame, Counter jib		
6		1330	A-Frame		
7		1400	Jib 1, 5 x 3.4T Counter Weights, Ballast Beam		
8		1500	Jib 2-3		
9		1530	Jib 4-6, 1 x 6T Counter weight		

Ancillaries

Serial No.	Description	Loader Signed	Supervisor Signed

Identification and Initial Assessment of Lifting Operations

Operation	Items to be lifted	Maximum weight	Mobile Crane Used	Lifted From	Lifted To	Equipment Used	Comments
Unloading and erecting of the Tower Crane	12m TS212 Tower	10000Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	Slew Ring Cab	10000Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	Counter Jib	7650Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	Ballast moving system	3130Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	Top A-Frame	5560Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	Small A-Frame	5050Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	Front Jib sections 1/2/3/4/6 hook block	9000Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	
Unloading and erecting of the Tower Crane	5x 3400Kg Counter weights 1x 6000kg	7400Kg Total 23000Kg	LTM1300	Artic Trailers	Tower Crane	As Appropriate	

All weights are inclusive of the mobile cranes hook block, stowed fly and lifting accessories. Allowance = 1400Kg

Erection Process of Tower Crane

The Client is to ensure the exclusion zone is maintained for the duration of the operation and that this is extended when the front jib is lifted.

The tower crane will be erected by trained competent personnel, in accordance with BS7121 and in accordance with the manufacturer's manual. The Supervisor / AP will have the tower crane manual with them for reference and will refer to the manual for guidance.

All radios when working at height are to be securely held within the appropriate radio holster and slung over the shoulder to prevent the radio falling from height.

Competent Slinger/Signallers / Tower Crane Erectors will sling loads with appropriate lifting accessories, following pre-use inspection, as per the manufacture's manual.

The haulage company will deliver the tower crane at set intervals as per Lorry Loading List

Erection Procedure Day 1

1. The first tower section will be unloaded from the transport, it will be upended and bolted to the expendable base. The bolts will be tightened to the correct torque before proceeding to the next section. This process will be repeated until the correct tower height is achieved. (TH20.3 tower total 10000Kg)

   Note: The tower will be erected with no consecutive rest platforms which conforms to:
   a. BS-EN-14122 Parts 2, 3, & 4

2. The slewring/cab will then be lifted, placed on top of the tower and bolted in position. (10000Kg)

   Bennett's electrician will connect the tower crane to the sites power.

3. Small A-frame will then be pinned to the slew ring (5050Kg)

4. The counter jib will then be lifted and pinned in position to the rear of the slew ring. (7650Kg)

5. The Top aframe will be lifted and pinned in position on the counter jib. (5560Kg)

Erection procedure Day 2

6. The ground where the front Jib (sections 1-2-3-4-6 & hook block) is to be assembled should be cleared and level. The front jib will then be lifted and pinned into position. All pins will be secured before the mobile crane is released. It will be slung at the correct slinging point and checked before being lifted into position at the top of the crane. The jib will be pinned at the heal before the jib holding ropes are pulled to the top of the A frame using the hand winch at the top, all pins will be secured before the mobile crane is released. (Max 9000Kg)

7. The ballast moving system will then be lifted and pined in position at the rear of the counter jib. (3130Kg)

All jibs will have a hand line attached to guide into position from the ground.

8. The counter weights will then be placed in the ballast carrier. (5 x 3400 Kg +1 x 6000 Kg) (Total 23000Kg) (max 7400Kg)

9. Once all the counter weights have been positioned the mobile crane will commence de rigging.

All weights are inclusive of the mobile cranes hook block, stowed fly and lifting accessories. Allowance = 1400kg

Reeve the hoist rope to the hook block, set the limits and test the crane. Set all jib and hook path limits and using known test weights, calibrate SLI and carry out load test.

SWL @ 50M = 4000Kg
SWL @ 26M = 8000Kg

Once test is completed, park the crane in the out of service position and complete the test certificate for the crane.

The signed test certificate will be left on site and a copy will be returned to Bennetts Cranes for entry into the crane file. The Tower Crane Operator, who holds the relevant training is to be inducted. He / she will then receive familiarisation training on the tower crane. This will be carried out by Bennetts Cranes and on completion both parties will sign the relevant paper work. A copy will be emailed to the site and a copy will be held by Bennetts Cranes.

It is the Clients responsibility to inform Bennetts of a change to the Tower Crane Operator.

Bennetts Cranes will arrange the Independent Thorough Examination of the crane and the Client is to ensure that the Tower Crane Driver and Banksman are on site to assist. Once complete the certification will be sent to the Client and a copy will be taken by Bennetts.

If the Tower Crane is to be fitted with a zoning system, a drawing must be produced by the Client detailing the boundary's the zoning system is to be set to. This must be signed by the Site Manager, Tower Crane Driver and the engineer who is fitting the system. The drawing must also be dated. A copy will be kept on site, a copy will be retained by the installation company and a copy will be forwarded to Bennetts Cranes.

Overload Test Procedure

Tower crane testing should be carried out with reference to BS7121-2-9:2016. The crane manufacturer, states that to achieve CE certification of conformity, the crane is subject to a static overload test of 125% of rated capacity. This is carried out when the crane is brand new.

Any dynamic testing should never subject the crane to an overload test of more than 110% of rated capacity.

1. The nominated Supervisor shall be in charge and in complete control of the test operation.

2. Prior to commencing the test procedures, the Supervisor shall examine the crane to confirm:

(a) All structural connections are in order.
(b) The crane is built to the correct configuration for the contract and conforms to the configuration in the manual from the manufacturer.
(c) The ballast is correct and marked up.
(d) All ropes are in good condition and correctly reeved.
(e) All anchorages are correct and that certification of the correct installation is in place.

3. The Supervisor shall ensure the areas where the tests are to be conducted, are clear of any obstacles which could impede the test.

4. The Supervisor shall inform the Site Management when the test is to commence and when the test is complete.

Functional testing

The functional testing is carried out with no load on the hook.
The object of the function test is to determine whether the crane operates smoothly with no sign of wear or damage. Every function of the controls should be operated through its full range including the operation of any brakes and safety devices.

Performance testing

Performance testing shall be carried out after the successful functional testing and with the rated load applied. The object of the performance testing is to determine whether the equipment performs to the manufacturer's specification. This shall include the operation of all controls to determine whether the crane operates smoothly and correctly through all motions at the rated speeds, and is free from wear and defect.

Dynamic Over Load Testing

The objective of the overload testing is to determine whether the equipment is stable, structurally sound and fit for the use for which it was designed.

During testing with overloads, all operations shall be carried out with extreme care. Every crane motion shall be carried out safely and at the lowest possible speed.

The dynamic overload test shall be carried out using a load 110% of the safe rated capacity of the crane at the outside radius of maximum lift, and 110% of the safe rated load at the maximum operating radius. If the test at maximum radius is not possible due to site conditions, then a shorter radius can be used with the 110% rated duty for that radius being applied.

This is to comply with the testing procedure recommended by the manufacturer.

The inside test is to prove the integrity of the hoisting, luffing/trolley winches, brakes and ropes. The load must be lifted until each tooth in the train of gears has been subject to the overload.
The test load will then be returned to 200mm above solid ground. The load must be suspended with all breaks applied to check for creep to prove the operation of the hoisting and luffing brakes.
The outside lift is to determine the stability and structural integrity of the crane. The test weight shall be lifted no more than 200mm above solid ground. The crane shall be slewed were permissible through 360° to test all anchorages. If because of obstacles the test weight cannot be slewed through 360° the test weights must be lowered to the ground and dismantled then re-assembled in the next test position where practicable.

On completion of the test, the Supervisor shall examine the crane, to check for any damage which may have been caused by imposition of the test load.
The crane safe working load limits shall then be set to 100%. A test lift shall then be made to ensure that the hoist cuts out at the correct safe working load and to ensure the crane limits are in fact set at 100%.

The test shall be recorded in the site register by the Supervisor and a copy of the test certificate completed and given to the Site Management before the Supervisor leaves site.

The crane cannot be put to work until a further thorough examination is completed by an independent thorough examination engineer.

Emergency Procedures / Tower Crane Personnel Rescue

Bennetts Cranes site personnel are trained in the GOTCHA CRD rescue system, details of which are below. The kit will be placed in the cab before the cab is lifted to the top of the crane. Training is refreshed every 3 years and the kits are subjected to annual inspection, if they are not used.

In the event of an accident / incident during erection operatives must comply with the accident / incident procedure as covered as part of the induction. It is the Client's responsibility to ensure that a procedure has been implemented, a designated assembly point has been made available and an investigation is conducted. Bennetts Management including the Health and Safety Department are to be contacted and may assist with the investigation.

Generally, actions such as the below may be required depending on the severity of the accident, and any associated hazards. Any environmental accident / incidents are also to be managed with a full investigation to be conducted.

1. Call the Emergency Services (as required.)
2. Treat casualties (if possible.) The Client is to ensure that there are trained first aiders present on site.
3. Cordon off the area.
4. Assess what has happened and complete a full investigation. A copy of this is to be provided to Bennetts Health and Safety Department.
5. Report to the relevant authorities i.e., HSE / RIDDOR. A copy of this report is also to be made available to Bennetts Health and Safety Department.

Accidents

The nearest Hospital with 24 Hour Accident / Emergency is: -

The telephone no is: -

To be advised by the Client during the site induction.

Incidents

Any incident is to be reported to Bennetts Cranes. A full investigation will be conducted and appropriate corrective actions will be implemented.

Emergency Telephone Numbers to be provided by the Client at the site induction.

Operators Rescue Plan

Under TIN13 It is advised that it is the user's responsibility (the Client) to provide rescue facilities for other personnel (the Operator) after the crane has been erected and handed over to the site.

Sequence of Installation of Safe Access and Fall Prevention System for Loading / Unloading

 	Attach 3 No clamps to the side of the trailer that will be used for loading/unloading, 1 approximately 1m from the headboard, 1 approximately 1m from the rear of the trailer, and the third in the middle of the 2. Then tighten all clamps with handle supplied.
 	Then insert all three poles into the pre-installed clamps.
 	Attach hooks from the straps to a suitable Anchor point position at the front of the trailer.
	Attach hooks from the ratchet part of the straps to rear of the trailer. Tighten both straps with the ratchet supplied. Care must be taken to ensure these are secure and tightly fixed along the side of the flat bed to eliminate the risk of any fall through a gap.
	Next access trailer by means of a footed ladder, maintaining 3 points of contact – use the straps as a hand hold for the last step.

Tool Tethering

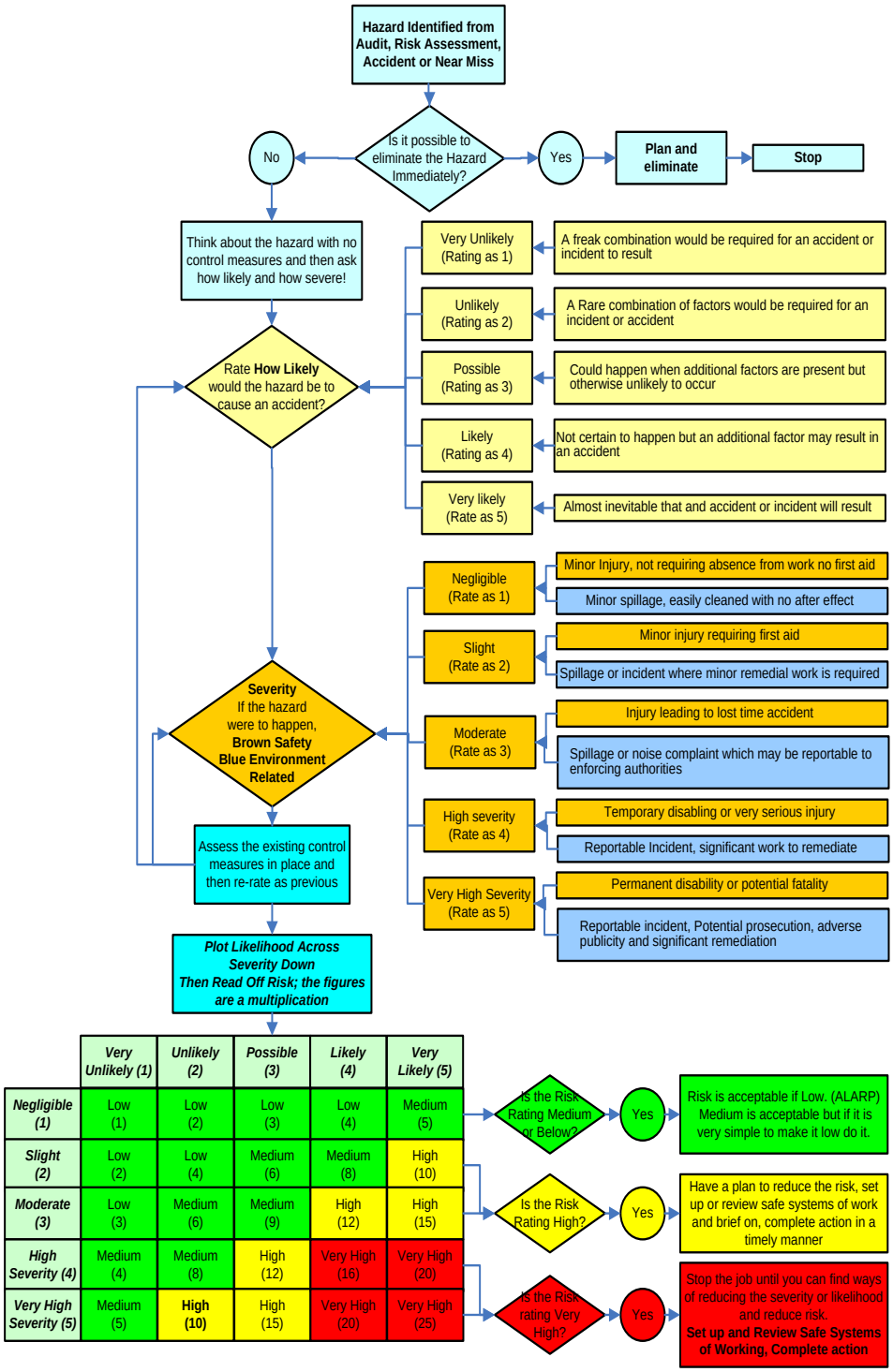
Tethers are to be used in line with the training that has been provided and the below manual.

The weight of the item to be tethered is to be considered when selecting the anchor point. This is to avoid personal injury, prevent damage and ensure that this is suitable. Should you have any queries please contact the office.

Where items such as hand tools have been used and the tether has been disconnected you are to ensure that the tool has been adequately secured into a lifting bag, which is sealed.

When working on a task where several tools are being used all items in use are to be tethered and any items that are not required at the particular time are to be sealed into a tool / lifting bag or light weight items attached to the Karabiner on the harness.

Risk Assessment



	Very Unlikely (1)	*Unlikely (2)*	*Possible (3)*	*Likely (4)*	*Very Likely (5)*
Negligible (1)	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)
Slight (2)	Low (2)	Low (4)	Medium (6)	Medium (8)	High (10)
Moderate (3)	Low (3)	Medium (6)	Medium (9)	High (12)	High (15)
High Severity (4)	Medium (4)	Medium (8)	High (12)	Very High (16)	Very High (20)
Very High Severity (5)	Medium (5)	**High (10)**	High (15)	Very High (20)	Very High (25)

Task	Hazard		Initial Risk			Existing Controls in Place	Residual Risk		
Identification of the task	Immediate hazard description & Effect	People at Risk	Hazard Severity	Likelihood	Risk Rating	Details of Existing Controls	Hazard Severity	Likelihood	Risk Rating
Crane failure / Overturning	The crane could suffer a mechanical failure resulting in dropping a load or the collapse of the crane. The crane may not have the necessary capacity to carry out the job effectively. The crane may fail as a result of overloading the crane.	Colleagues, Contractors, Site personnel	5	2	10	The cranes are to be set up and operated as per the manufacturer's guidelines. Only competent persons are to operate the cranes ensuring that they also hold specific training to the make and model of crane that they are operating. All mobile cranes are Thoroughly Inspected by an independent inspector on an annual basis. This may be moved to every 6 months should the lifting of personnel be required. Daily pre-use inspections are completed to identify any potential faults. The Lift Supervisor/AP checks the paperwork for the crane before commencing work. The AP/Lift Supervisor is to check the crane's details against the RAMS to ensure that it is correct. Any amendments are to be communicated to the Lifting Team. Operator is to ensure that the RCI is programmed correctly. The capacity is to be known of the heaviest item that requires lifting and this is to be Checked against the duty chart. If the mobile has a significant defect, the crane is not to be used and the risk assessment and method statement need to be amended to represent the new crane that is being used.	5	1	5
Moving plant / Vehicle / Pedestrian Movement Inc. moving counterweight swing	Colleagues could be impacted from a moving vehicle if the person or the vehicle was not aware of the location of either which could	Colleagues, Contractors, Site personnel	4	4	16	An exclusion zone is to be created for the lifting operations and only the Lifting Team are to be within this. Reversing bleeper on vehicles to be in full working order and Banksman to marshal any movement. Hi-Viz is a mandatory requirement when working on site. Pedestrian movement to be segregated/diverted where required.	4	2	8

	lead to fatal injuries.					Ensure a 600 mm clearance to the hard points and/or barrier off. The site rules are to be adhered to at all times. Traffic management will be arranged should this be required.			
Ground Conditions	The crane may sink if the ground is not of adequate strength causing damage to property, personal injury or death. Sinking may occur whilst working causing a load to be dropped resulting in damage to property, personal injury or death.	Colleagues, Contractors, Site personnel	4	5	20	The site is responsible for pressure testing the ground to the required strengths detailed in the site-specific RAMS. The site is responsible for signing the RAMS to confirm that the ground can withstand the imposed loads. Bennetts will not attend site without this being signed. The mobile crane company provides the maximum out rigger loadings specific for every job which are detailed in the RAMS and supplied to the Client separately in order for them to carry out a pressure test. It is advised that the site marks the ground position of the mobile crane to ensure that the crane sits within the intended area. Additional mats are used where this has been identified in the ground bearing pressure. The effects of these on the ground bearing will be communicated and shared with all parties. The weather conditions may also have a factor on the ground conditions. A site visit will be arranged prior to the Install to ensure that the ground is suitable for the works to commence.	4	1	4
Weather	Extreme weather could cause poor visibility, slippery loads, poor ground conditions or an increased weight of loads resulting in increased risk of dropping loads, causing damage with moving loads or	Colleagues, Contractors, Site personnel	5	4	20	48 hours prior to commencement of the job, weather forecasts are obtained and stored within the job files. The weather is monitored and if high risk weather conditions are expected then the job may be halted and conducted later on in the day or aborted all together when the weather has improved. The mobile crane operator will advise on the decision of the weather and safe operation of the mobile crane. Their findings are to be agreed with the	5	2	10

	over loading the crane. Wet weather can lead to poor ground conditions resulting in compromising the mobile crane and lay down areas.					Appointed Person, who will then liaise with the site. Once the crew is on site, should the weather be different to the forecast, the Appointed Person will review the crane manual and make a decision if it is safe to continue with the works. Under no circumstances are any colleagues pressured to work in unsafe conditions.			
Wind	Mobile cranes are not safe to work in winds hirer then 9.8m/s. High winds may also cause swinging loads which can result in damage to property, personnel injury/death, a pendulum swing increasing side loadings on the crane jib possibly resulting in crane failure. If the crane is not rigged correctly high winds may blow the crane over causing damage to property and personal injury/death.	Colleagues, Contractors, Site personnel, members of the public	4	4	16	Trained competent operators understand the significance of not lifting/operating the crane in winds over 9.8m/s, or the wind speed as stated within the Manufacturers Manual if this is lower. All on site personnel sign the RAMS to say that they will work within the safe system of work. Anemometers are fitted to the cranes to tell the driver when it is not safe to lift. The RAMS state that all lifts should have tag lines to prevent uncontrolled movement of loads. PPE is worn at all times to prevent injuries. If any member of the Lifting Team feels uncomfortable with the lifting conditions the lift is to stop and their concerns are to be addressed. If the mobile crane is on site it may be required that the jib is lowered, by the Crane Driver using guidance within the Manual, in this instance the mobile company are to advise. Should stronger winds be present when the Tower Crane is erected it is the Clients responsibility to ensure that the crane is operated in line with the manufacturers manual and that the anemometer is working. It is the Clients responsibility to ensure that any defects are reported to Bennetts.	4	2	8
Lightning Strike	lightning strike can cause	Colleagues	5	2	10	The weather forecast is obtained prior to attending site. This is reviewed for the day of the works and is provided	5	1	5

	serious injury or death					on an hour to hour break down. The forecast is monitored and if it is deemed unsafe with plans of lightning then the works will be rescheduled. The mobile crane operator is responsible for ensuring that they are happy with the weather conditions. Any concerns during the erection should be raised with the Appointed Person and they will make a decision if it is safe to proceed. During operations it is the Clients responsibility to ensure that the Tower Crane is operated in a safe manner. It is the Clients responsibility to arrange lightning protection for the tower crane following erection.			
Light Conditions	Failing light will result in reduced visibility of lifting operations and pose a serious safety risk.	Colleagues, Contractors, Site personnel	4	5	20	Bennetts' Appointed Person will assess the light conditions prior to and during works and cease all works if at any point it is deemed unsafe to work. If required to work at night the site must provide adequate site lighting which is deemed acceptable by Bennetts' AP and in line with the recommendations made by the HSE for operations. If lighting is restricted operations will cease. Head torches are not provided as this is deemed not a safe option. The crane is to be erected in line with the agreed working hours. Should additional hours be required this is to be communicated with Bennetts and sufficient lighting is to be provided by the Client.	4	2	8
Use of lifting equipment	Lifting equipment could fail resulting in possible loads being dropped causing damage to property,	Colleagues, Contractors, Site personnel	5	4	20	All lifting certificates are provided by the mobile crane company and inspected by the Lift Supervisor before work commences. All lifting accessories must have an in date 6 monthly inspection. All lifting accessories are visually inspected before being put into use. Bennetts hold all certification for the items held by their employees. Should anything	5	2	10

	personal injury or death.					further be required for the lifting operations to take place this will be arranged by the Appointed person. A tagging system is also applied to Bennetts lifting accessories so a coloured cable tie will be installed identifying that this has been inspected. Any items that do not have a colour cable tie that belongs to Bennetts are not to be used on site. Only trained personnel are to be involved in the operations.			
Slinging of loads	Incorrect slinging may result in loads dropping / juddering, causing damage to property, personal injury or death	Colleagues, Contractors, Site personnel	4	5	20	All Slinger/Signallers are trained and competent. All Slinger/Signallers have read the Risk Assessment and Method Statement. A Lift Supervisor should always be present during lifting activity. The Appointed Person on site is responsible for ensuring that the safe system of work is adhered to including correct slinging techniques. A non-residential AP will have written the RAMS and will ensure Test lifts with holding points are carried out with the Slinger checking the chains are not twisted or snagged. Lifting accessories are to be used that are suitable for the task that are to be arranged via the competent Slinger/Signaller. All colleagues hold sufficient training on site and cards remain readily available.	4	2	8
Moving loads	Risk of being struck / trapped by moving loads causing personal injury or death. Damage to property caused by uncontrolled moving loads.	Colleagues, Contractors, Site Personnel	3	3	9	Tag lines are to be used to control all loads when in the air. Visibility should be maintained between Slinger/ Signaller and Crane Operator where possible. Where visual contact cannot be maintained then radios should be used. Lifting should not be carried out in high wind levels. All personnel are trained and competent and have read, understood and signed the RAMS. PPE should be worn at all times to protect against injury. No loads are to be moved in high winds and the size	3	2	6

						of the object is to be considered, along with the environment in which this is to be moved, prior to moving. The Lifting Team are to be aware of the Lifting Plan that includes all of the items that are to be lifted and how this should be completed. If any item is felt unsafe or falls out of the capabilities of the machine then this is to be raised with the Lift Supervisor.			
Working near Network Rail	Risk of crane collapse onto Network Rail property causing damage to property and risk of personal injury or death. Risk of breaching contractual agreements with Network Rail.	Colleagues, Contractors, Site personnel, Network Rail, public	5	3	15	The mobile crane is fitted with a slew restrictor to stop the mobile crane encroaching onto Network Rail property. This will be set up and demonstrated to the Network Rail Supervisor before any mobile crane operation begins. Crane loadings are increased by 33% as a safety factor and mat sizes adjusted to satisfy the increased loadings. Any mobile crane on Network Rail jobs must not work in excess of 75% capacity. Only trained, competent personnel will operate the crane.	5	1	5
Working near Power lines / cables / pylons	Risk of electrocution causing damage to property, personal injury or death.	Colleagues, Contractors, Site personnel, public.	5	3	15	Any power cables in the path of the mobile crane are lowered before work commences following a comprehensive site visit to assess the site. Detailed drawings of the mobile position are drawn to identify any power lines/areas in which the mobile cannot work. Only trained and competent personnel may operate the crane. All instruction will be given to the mobile operator using radios from trained and competent Banksman who has a clear view of any power lines etc. The position of the mobile crane and tower crane would have been agreed with the Client prior to the commencement of works. Should there be any amendments to the positioning and access of the cranes / haulier's vehicles this is the Clients responsibility to confirm this with	5	1	5

						Bennetts prior to the works. Should any movements be required within close vicinity of power lines it is the Clients responsibility to ensure that these are switched off and that this is confirmed and communicated with the Lifting Team.			
Working near water / river / sea etc.	Risk of ground level changing due to water table. Risk of drowning.	Colleagues, Contractors, Site personnel,	4	4	16	Detailed testing carried out on the ground conditions; crane mats sizes increased where necessary. Detailed site visits to be conducted prior to commencement of any works. Plans to be reviewed and positioning of the mobile and tower crane, along with access routes to be agreed with the Client. The Client is also to detail what site controls have been installed i.e., life jackets, buoyancy aids etc, and ensure that Bennetts have sufficient knowledge and access to emergency equipment should this be required. Tidal levels to be monitored and planned for.	4	3	12
Working near an aviation facility	Risk of Collison between aircrafts and crane causing damage to property, personal injury and death.	Colleagues, Contractors, Site personnel, public.	5	2	10	Where necessary the cranes are fitted with aviation warning lights. If required, the local Aviation Authority is notified of planned works. It is the Clients responsibility to request the aircraft warning light and the type of light that is required to be fitted. Pricing for which, is provided within the quotation for the tower crane.	5	1	5
Working at height when unloading / loading transport	Risk of falling from height.	Colleagues, Contractors,	4	4	16	Suitable edge protection is to be installed on the edge of the vehicle bed. Access to the vehicle is to be made via a designated ladder and is to be used in line with the training that has been provided. The ladder is to be visually inspected prior to use and 3 points of contact are to be made with the ladder at all times. Each crew has a set of edge protection readily available in their van. All staff have reviewed and signed the site RAMS accepting that they will implement the	4	2	8

						safe system of work when working at height on a lorry bed. The fixed step installed on the vehicle bed can also be used for accessing the vehicle. The Haulage company is to work in line with the Bennetts procedures for the installation and use of edge protection. Unstrapping of the load is the responsibility of the Haulier. The vehicle is to be maintained and the trailer is also to be cleaned and maintained. Any defects are to be reported to the Transport Manager of the Haulage Company. All lifting equipment for unloading / loading the vehicles are to be readily available and certified. All colleagues are trained in Slinger Signalling.			
Access / Egress for attaching loads	Risk of trips / falls whilst attaching / detaching loads due to uneven ground conditions and debris.	Colleagues, Contractors	4	3	12	The site is responsible for providing access/egress to the loads as identified in the RAMS. Suitable access/egress is to be determined ahead of attending site following a visit to rep the site. This visit also includes agreeing the positioning of the mobile and the tower crane. This is to be signed by the Client. Pre-use checks are to be completed on the vehicle and any defects are to be reported to the Transport Manager. Any issues with the Transport are to be relayed to Bennetts Operations Manager. All colleagues and Contractors are to be wearing safety boots and additional PPE in line with site requirements. Caution is to be taken on uneven ground conditions, muddy conditions etc. The Client is responsible for ensuring that no objects are present within the exclusion zone	4	2	8
Transportation of the load	The driver could fall asleep at the wheel or drive the lorry in an	Members of the Public	4	3	12	The Haulage company are to ensure that the vehicle is subject to a pre-use inspection and that any defects are to be raised to the Transport Manager.	4	2	8

	unsafe manner which could result in an accident					The Haulage company are responsible for ensuring that the vehicle has a valid MOT, Insurance held and the vehicle is road worthy. Tachos are to be reviewed and Drivers are to be working in line with this. If the load is running late for any reason a holding area is to be arranged and regular communication is required with the Appointed Person on site.			
Loading / attaching and securing loads	Risk of objects coming loose or falling from the lorry. Risk of overloading the lorry in width or length.	Colleagues, Contractors, Site personnel	4	3	12	The responsibility of loading the vehicle is with the haulage company. Large objects are to be well secured with good chains and straps. Load to be checked before moving. Should there be any concerns during transportation the vehicle is to be stopped and the load are to be checked. Warning triangles and beacons to be used as well as vehicle escorts where necessary. The lorry driver is to be given adequate time to check his load prior to moving the vehicle. A Banksman is also to be made available on site to ensure that the lorry drivers knows exactly where the lorry is to be positioned.	4	2	8
Working at height whilst erecting / dismantling the crane	Risk of personnel falling from height.	Personnel	5	5	25	Edge protection is used where ever possible. Ladders are used to access vehicles and these are to be used in line with training provided. All Bennetts' staff wear double lanyards when working on the A frame or walking the jib. Lanyards/harnesses are inspected daily for damage, any damage is reported immediately and the lanyard is not to be used if damaged. A pre-use inspection record is completed daily and sent in monthly to the office. Certification for all lifting equipment remains readily available and a colour coded cable tie has been installed to provide a visual aid to show that this has been inspected. Staff are all trained in the use of their harness and	5	1	5

						in the job role that they are completing on site. A GOTCHA rescue kit is available and staff have been trained in the use of it. This kit is taken to site and is placed in the cab. No unauthorised persons are allowed up the crane and the Client is responsible for providing hoarding etc to ensure that this is restricted. Should an unauthorised person climb the crane, the crane is to be inspected to ensure that there are no signs of damage. The Client are to inform Bennetts in this instance.			
Recovery from Height	Risk of injured / unconscious personnel not being able to climb down the crane	Personnel	5	2	10	A GOTCHA 100 CRD RESCUE KIT will be on site at all times when the tower crane is being erected. All of Bennetts staff have been trained in the use of this system and hold in date training. Certification is available upon request. Should any damage be noticed to any of the kits these are to be removed from service and are to be re-inspected. Once the tower crane has been erected it is the responsibility of the Client to ensure that there is a rescue plan in place for the Crane Driver and that he has received the appropriate training on this system.	5	1	5
Lifting at height	Risk of falling from height or being struck by a moving load at height potentially causing injury.	Colleagues	3	3	9	When working at height lanyards/harnesses are to be worn whilst on the A frame of walking the jib. Only trained, competent staff are permitted to carry out the works. Daily checks of harnesses are completed and recorded and any damaged reported immediately. If ladders are to be used then they must be visually inspected and safe to use and the staff member must be trained in using the ladder safely. All staff have signed the yard Method and risk statement addressing this. Hi-Vis and hard hats are to be worn when working at height	3	2	6

						to maintain visibility of personnel at height.			
Use of tools at height	Risk of tools falling from height damage to property, personal injury or death. Risk of injury to personnel if tools are not used correctly / securely.	Colleagues, Contractors, Site personnel, Members of the public	5	3	15	Toe boards are provided on access equipment. All personnel are provided with tool belts and bags to contain tool when working at height. All tag bags that are used for lifting have been inspected and are certified. A holder is also provided for the radios. Exclusion zone to be provided at the base of the crane to prevent injury caused by potential falling objects and to prevent injury to the public. Bennetts' staff are to inspect tools before use to ensure hammer heads are secure etc. Any damage to tools or equipment is to be immediately reported.	5	2	10
Roping and de-roping the crane	Risk of damage to property, personal injury or death caused by sock parting, wrong rope being fitted, drum collapsing, falling pear wedge. Broken wires, incorrect reeving etc. Amputation / Crush injuries from being dragged into the sheaves.	Colleagues, Contractors, Site Personnel	5	3	15	Bennetts have competent erectors who also hold Wire Rope Inspection Training. Pre-delivery inspections are conducted on the crane inspecting the ropes and ensuring that they comply with BS4309 and that the ropes are measured. A spreadsheet is maintained with the rope measurements to ensure that these remain acceptable. During erection the erectors will ensure free running of ropes. Also, that they are in good condition, check diameter, configuration, strength and length. They will also check condition and set up on secure stand, Pull ropes tight and hammer into wedge, wear gloves and check along length on pre-used rope. The inner hook to be lashed to jib until reeving complete. Gloves are to be worn at all times when handling and inspecting the rope and full concentration is required. Caution is to be taken around the sheaves as this area is an entrapment risk. No untrained colleagues are permitted within this area. Once the crane has been erected it is the Clients	5	1	5

						responsibility to ensure that the ropes are checked and maintained. Exclusion zone to be maintained whilst the crane is being erected. The Crane Driver is to remain on standby and ensure that any hand signals or radio instructions are complied with.			
Fatigue / Medication	Colleagues work long hours and leave in the hours of darkness and therefore can become tired. By taking prescription / non-prescription medication this could lead to fatigue, general feeling unwell or side affects	Colleagues, Contractors, Site Personnel	4	3	12	If a colleague is taking long term prescription or medication that is causing side effects it is requested that this is highlighted to a member of staff. A vulnerable person's specific risk assessment will then be completed and install specific controls for that person. A health form is sent out on an annual basis and health is reviewed. The field-based engineers are also subject to an external Fit for Work assessment every 3 years. If someone was believed to be working in a different manner to normal or acting differently this would be monitored unless this is deemed unsafe and then this operation would be stopped immediately. The number of average working hours is monitored and it is the company's target to maintain a working week of 72 hours over a 13-week average. Random drug and alcohol testing is conducted on site and a procedure has been made available to all staff. Should a positive trace be identified the colleague will be escorted home.	4	1	4
Public Interest	Working within public areas poses possible risks to the public of personnel injury or death.	Members of the Public	5	4	20	The Client is responsible for ensuring the public are kept at a safe distance which will be controlled as part of the Site Management. Should Bennetts identify any unauthorised access to the site this is to be reported to the Client. An exclusion zone is to be arranged by the Client prior to the erection and the Client is responsible for ensuring that this is adhered to. Only members of the lifting operation	4	2	8

						are to be within the exclusion area. Any complaints from members of the public are to be managed by the Client.			
Blind Lifting	During erection of the tower crane, the mobile driver may conduct blind lifts which could result in property damage or injury to personnel	Colleagues, Site Personnel, Visitors, Members of the Public	5	3	15	Bennetts will ensure that a radio test is conducted if radios are to be used prior to any lifting taking place. This check is to ensure that batteries are charged, all radios are on the same channel and instructions can be clearly understood. Hand signals can be used on site in line with training however these must be visible to the Crane Driver. Additional persons may be required should hand signals be required. The Client is to ensure the exclusion zone is complied with.	5	2	10
Environmental Incident	During erection there may be an oil leak from a main component or grease could be spilt. Waste could also be left unmanaged causing ground / water contamination	Colleagues, Site Personnel, Visitors, Members of the Public	4	3	12	The tower crane is subject to a pre-delivery inspection before being loaded on the trailers and taken to site. All of the major components will be inspected and checked to ensure that they are sealed. Should a leak occur whilst on site the Clients spillage procedure is to be adhered to. All MSDS remain readily available and COSHH assessments have also been conducted. Should a spill occur from the mobile crane the Clients spillage procedure is also to be complied with.	4	2	8

Covid-19 Risk Assessment

Task	Hazard		Initial Risk			Existing Controls in Place	Residual Risk		
Identification of the task	Immediate hazard description & Effect	People at Risk	Hazard Severity	Likelihood	Risk Rating	Details of Existing Controls	Hazard Severity	Likelihood	Risk Rating
2-way radios being used by different people who may have Coronavirus	Personnel speaking into microphone and handling radio who are infected with Coronavirus causing next user to become infected, leading to serious illness and possible death.	Colleagues , Contractors , Site personnel	4	3	12	During site lifting operations, including erections, dismantles, base assemblies, personnel will only use a 2-way radio and microphone which is allocated as their personal radio. No radios are to be used by more than one person. Spare batteries will be available for all users of radios. Microphones and radio units will be cleaned at the end of each shift. The radio is to be secure in a holster when not in use but required on site.	4	1	4
Delivery vehicles entering site and customers site with driver suffering from Coronavirus disease	Driver contaminating surfaces he/she touches or coming too close to personnel and infecting them, therefore people becoming infected when touching surfaces and becoming infected from contact with the driver leading o serious illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	Drivers to stay in cab if the load will allow it. If the driver does leave the cab they must wash or clean their hands. Appropriate PPE will be worn at all times and compliance with the latest government advice.	4	1	4
Members of the erection team/ lifting operation team being infected with Coronavirus	Erection team passing infection on to others crew members/customers personnel leading to serious illness and possible death.	Colleagues , Contractors , Site personnel	4	3	12	The Erection Team / Lifting Operation Team have strictly adhered to the Government guidance on dealing with the disease. Self-isolation has been practiced if any of the team's family members or themselves personally have experienced any virus symptoms. Appropriate PPE is worn as required.	4	1	4

PPE being used by the crew members being contaminated by Coronavirus	Crew members coming into contact with contaminated PPE and being infected with Coronavirus causing illness and possible death.	Colleagues , crew members	4	2	8	Individuals are responsible for their own PPE ensuring they are clean and hygienic. Contact with face is to be as little as possible. All PPE is to be removed from site. Where colleagues cannot social distance face masks are to be worn.	4	1	4
Travelling to and from customers site to erect/dismantle tower cranes /carry out lifting operations and coming into contact with people with Coronavirus	Crew passing infection to each other or coming into contact with people with Coronavirus on journey and being infected causing illness and possible death.	Colleagues , Contractors , Site Personnel	4	3	12	Single occupancy vans/vehicles for personnel to travel to and from customers sites and overnight accommodation to customers sites. Where this is not possible the appropriate PPE will be worn.	4	1	4
Crew coming into contact with reception staff / other customers and getting within 2m whilst staying in hotels	Crew passing infection to each other or coming into contact with reception staff/hotel customers with Coronavirus and infecting others or being infected by others causing serious illness and possible death.	Colleagues , Contractors , Site personnel, staff	4	3	12	Crew team to stay in clean accommodation that is re-cleaned daily. Pre-paid take away food to be ordered with strict social distancing observed with delivery personnel.	4	1	4
Tools and equipment being used which are infected by Coronavirus during lifting operations	Crew members using contaminated tools and being infected with Coronavirus causing illness and possible death.	Colleagues , Contractors , site personnel	4	2	8	Full PPE to be worn by the crew when using tools and equipment including overalls, gloves, steel toe cap boots, glasses, hard hat and chin strap to avoid touching tools and equipment with bare skin. Tools and equipment will be kept in vehicles when not being used so as no unauthorised personnel can use them. Tools will be taken out of vans to ensure good airflow around tools.	4	1	4
Crew members not keeping 2m apart during	Personnel coming within 2m of other personnel who are	Colleagues , Contractors	4	3	12	Inductions to be carried out in a room with enough space to maintain 2m distance at all	4	1	4

induction / method statement / risk assessment briefing	infected or carrying the disease and becoming infected causing illness and possible death.	, site personnel				times. If this is not available. Alternatively, inductions will be carried out outside in open air. Briefings to be carried out in open air with all personnel over 2m apart. Persons carrying out briefing to police distancing. Supervisor to reinforce social distancing (2m) during briefing and emphasise importance. Where this is not possible the appropriate PPE will be worn.			
Crew not keeping 2m apart when setting up the Mobile Crane	Crew coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Crew members not keeping 2m apart from other site personnel	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	3	12	Exclusion zone will be set up and maintained throughout the operation. When personnel need to leave the exclusion zone, they inform the AP and a safe path is maintained to ensure 2m distance is kept between site personnel. The sites preventative measures and latest government advice is to eb adhered to at all times.	4	1	4
Erection personnel not keeping 2m apart (social distancing) whilst using torque gear to join bolt connections	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst connecting tower sections	Personnel coming within 2m of other personnel who are infected or carrying	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time	4	1	4

	Coronavirus and c becoming infected causing illness and possible death.					spent within 2m of someone else will be as minimal as possible.			
Erection personnel not keeping 2m apart whilst putting the Slew ring section on top of the tower	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus becoming infected and causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst connecting A frame to the slew ring section	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst connecting the cab to the Slew ring section (if not lifted as one)	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst assembling the front jib	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4

Erection personnel not keeping 2m apart whist connecting the front jib	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst connecting the counter-jib to the slew ring section	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst securing /loading ballast blocks onto back jib of crane	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst putting luffing rope on	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected causing illness and possible death.	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Technician not keeping 2m apart whilst working on electrical systems	Personnel coming within 2m of other personnel who are infected or	Colleagues , Contractors	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time	4	1	4

to facilitate power to crane and carry out setting of limits and programming the computer for the particular configuration	carrying Coronavirus and becoming infected with Coronavirus causing illness and possible death.	, Site personnel				spent within 2m of someone else will be as minimal as possible.			
Erection personnel keeping 2m apart whilst an inspection is carried out by the Supervisor prior to the crane being tested	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected with Coronavirus causing illness and possible death	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Erection personnel not keeping 2m apart whilst testing the Tower Crane	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected with Coronavirus causing illness and possible death	Colleagues , Contractors , Site personnel	4	2	8	A minimum distance of 2m should be maintained where possible however if at any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	1	4
Crew members not keeping 2m apart whilst carrying out a rescue	Personnel coming within 2m of other personnel who are infected or carrying Coronavirus and becoming infected with Coronavirus causing illness and possible death.	Colleagues	4	2	8	As this will be an emergency situation the rescue procedure identified in the method statement will be followed. The erectors have been trained and are competent to carry out the rescue but due to the fact it is an emergency the social distancing rule will not be able to be kept. At any point where it is not safely possible to maintain the 2m distance the appropriate PPE will be work and the time spent within 2m of someone else will be as minimal as possible.	4	2	8

NB where it is not possible for operatives to remain 2m apart the appropriate PPE will be worn and social distancing guidelines followed.

COSHH Assessments

MSDS are held by Bennetts Cranes and are available upon request.

Grease

Product	EP2 Lithium Grease	Manufacturer	Wurth
Process	Brown lubrication grease for Tower Crane		
Assessor	S Chamberlain	MSDS Review Date	11/06/18

	Yes	No
Can the product or process be eliminated or replaced?		No
Can the substance be substituted by a less hazardous substance?		No
Is addition training required for using the substance?		No
How many people are exposed from this product?	2 Persons max	
Can exposure be used within the safe working exposure limits (WEL)?	Yes	
Associated Risk Ratings	H315, H318, H319, H411, R38, R41, R51/53	

Control Measures	
PPE required at all times when using this product:-	
	
Respiratory Protection	Respiratory protection is only recommended in emergency scenarios.
Ventilation	Substance to be used in a well-ventilated area.
First Aid Measures	
Skin Contact	Wash immediately with plenty of soap and water.
Eye Contact	Bathe the eye with running water for 15 minutes.
Ingestion	Wash out mouth with water. Do not induce vomiting. Consult a doctor.
Inhalation	N/A
Fire Fighting	
Extinguisher Type	Water, Dry Powder, Carbon dioxide.
Controls	Use water to spray cool containers.
Accidental release	Do not discharge into drains or rivers. Contain the spillage using bunding.
Handling and Storage	
Handling	Use in a well-ventilated area.
Storage	Avoid direct contact with the substance. Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed.
Stability or Reactivity of the Substances	
Stability	Stable under normal conditions.
Reactivity	Avoid heat sources, sources of ignition and flames. Incompatible strong oxidising agents. Strong acids.
Disposal Considerations	
Waste Disposal	Transfer to a suitable container and arrange for collection by specialised disposal company.
Disposal of Packaging	Dispose of as normal industrial waste.

Open Gear Wheel Spray

Product	Gear Wheel Spray	Manufacturer	Wurth
Process	Apply to the gears / pulleys on a regular basis by the driver and also at service intervals.		
Assessor	S Chamberlain	MSDS Review Date	05/08/14

	Yes	No
Can the product or process be eliminated or replaced?		No
Can the substance be substituted by a less hazardous substance?		No
Is addition training required for using the substance?		No
How many people are exposed from this product?	2 Persons max	
Can exposure be used within the safe working exposure limits (WEL)?	Yes	
Associated Risk Ratings	None stated on MSDS	
Associated Safety Ratings	None stated on MSDS	
Control Measures		
PPE required at all times when using this product: -		

Respiratory Protection	Respiratory protection is only recommended in emergency scenarios.
Ventilation	Substance to be used in a well-ventilated area.
First Aid Measures	
Skin Contact	Wash immediately with plenty of water for at least 15 minutes whilst removing contaminated clothing and shoes. Wash off with polyethylene glycol and afterwards with plenty of water. Get medical attention immediately.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if possible. Get medical attention.
Ingestion	If swallowed do NOT induce vomiting. If vomiting has occurred lean patient forwards.
Inhalation	If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention immediately.
Fire Fighting	
Extinguisher Type	Carbon Dioxide, Water and Dry Powder.
Controls	Do not use solid water spray as it may scatter the fire. Use extinguisher to suit the surrounding environment. Use water to cool unopened containers. If the temperature rises further vessels risk exploding due to the high heat.
Accidental release	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Contain. Local authorities should be advised if significant spillages cannot be contained.
Handling and Storage	
Handling	Use in a well-ventilated area.
Storage	Keep container tightly closed and away from any sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimise release into the environment. Recommended storage temperature is 10 – 40 degrees centigrade.
Stability or Reactivity of the Substances	
Stability	Stable under normal conditions.
Reactivity	Not classified as a reactivity hazard.
Disposal Considerations	
Waste Disposal	The product would not generally be disposed of however should the need arising i.e., through a spill etc. this would be via a hazardous waste dispose route.
Disposal of Packaging	Empty containers that are used on site are to be disposed of by the principal contractor. A designated aerosol bin is to be provided and contained waste disposed of as hazardous waste under 160514 areoles containing hazardous substance.

Blue Grease

Product	Liebherr Spezial Schraubenpaste (Blue Grease)	Manufacturer	Liebherr
Process	Greasing of the bolts for the tower crane		
Assessor	S Chamberlain	MSDS Review Date	26/09/12

	Yes	No
Can the product or process be eliminated or replaced?		No
Can the substance be substituted by a less hazardous substance?		No
Is addition training required for using the substance?		No
How many people are exposed from this product?	2 Persons max	
Can exposure be used within the safe working exposure limits (WEL)?	Yes	
Associated Risk Ratings	R51/53, S29/56, S57, S61	
Control Measures		
PPE required at all times when using this product:-		

Respiratory Protection	No RPE is required whilst using this product
Ventilation	Ensure good ventilation is available
First Aid Measures	

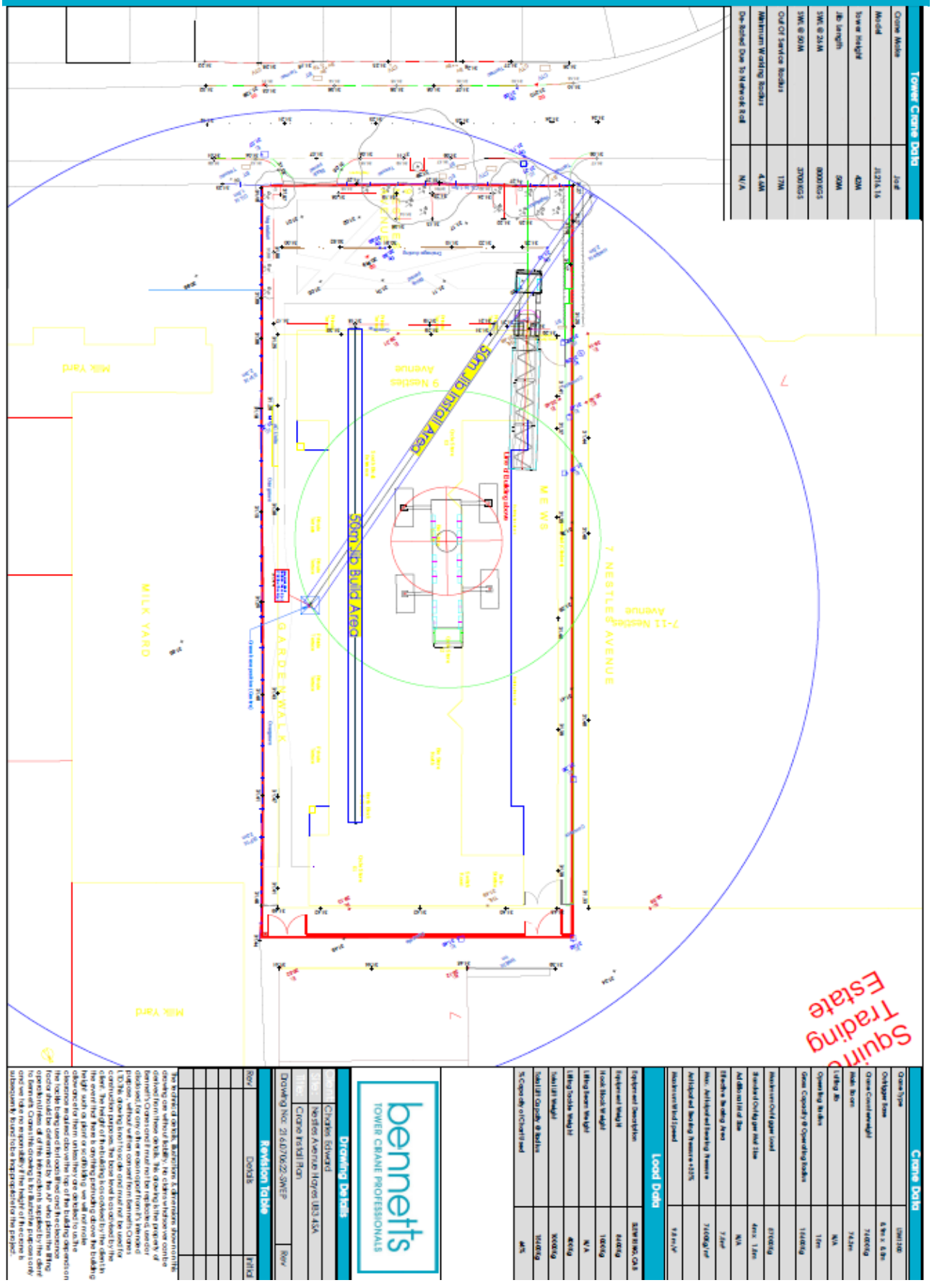
Skin Contact	Immediately wash with soap and water, rinse thoroughly
Eye Contact	Rinse eye for several minutes under running water
Ingestion	No advice given
Inhalation	Supply fresh air, consult doctor in case of further complaints
Fire Fighting	
Extinguisher Type	CO2, Sand, Powder
Controls	Use suitable extinguishing method to suit the surroundings. Do not use a water jet.
Accidental release	Do not allow to enter sewers or water course. Inform authorities should this enter the water course.
Handling and Storage	
Handling	When handling the product in drums use safety footwear and suitable tools.
Storage	Store in a cool, dry place in sealed containers. Only store in the original container. Store away from foodstuffs and oxidising containers.
Stability or Reactivity of the Substances	
Stability	Stable under normal conditions.
Reactivity	Avoid contact with heat, sparks, flames and all other sources of ignition. Reacts with strong oxidising agents. Product is not classified as inflammable but can burn.
Disposal Considerations	
Waste Disposal	Remove from site as a hazardous substance and ensure product is kept contained.
Disposal of Packaging	Removal all packaging from the site and dispose of as hazardous waste. Do not allow the product to enter water courses or leak into the soil.

Wire rope spray

Location of Use	Site	Date of Assessment	30/06/17	
Product	Wire Rope Spray	Manufacturer	Wurth	
Process	Apply to the rope on a regular basis by the driver and also at service intervals.			
Assessor	S Chamberlain	MSDS Review Date	07/06/19	
			Yes	No
Can the product or process be eliminated or replaced?				No
Can the substance be substituted by a less hazardous substance?				No
Is addition training required for using the substance?				No
How many people are exposed from this product?			2 Persons max	
Can exposure be used within the safe working exposure limits (WEL)?			Yes	
Associated Risk Ratings			None stated on MSDS	
Associated Safety Ratings			None stated on MSDS	
Control Measures				
PPE required at all times when using this product:-				
				
Respiratory Protection	Respiratory protection is only recommended in emergency scenarios.			
Ventilation	Substance to be used in a well-ventilated area.			
First Aid Measures				
Skin Contact	Wash immediately with plenty of water for at least 15 minutes whilst removing contaminated clothing and shoes. Get medical attention immediately.			
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if possible. Get medical attention.			
Ingestion	If swallowed do NOT induce vomiting. If vomiting has occurred lean patient forwards.			
Inhalation	If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention immediately.			
Fire Fighting				
Extinguisher Type	Water, Foam, Carbon Dioxide.			
Controls	Use extinguishers that are appropriate to the local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from site if it is safe to do so. Evacuate the area.			
Accidental release	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Contain. Local authorities should be advised if significant spillages cannot be contained.			
Handling and Storage				
Handling	Use in a well-ventilated area.			

Storage	Keep container tightly closed and away from any sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Recommended storage temperature is 10 – 40 degrees centigrade.
Stability or Reactivity of the Substances	
Stability	Stable under normal conditions.
Reactivity	Not classified as a reactivity hazard.
Disposal Considerations	
Waste Disposal	The product would not generally be disposed of however should the need arising i.e., through a spill etc. this would be via a hazardous waste dispose route.
Disposal of Packaging	Empty containers that are used on site are to be disposed of by the Principal Contractor. A designated aerosol bin is to be provided and contained waste disposed of as hazardous waste under 160514 areoles containing hazardous substance.

Site Drawing



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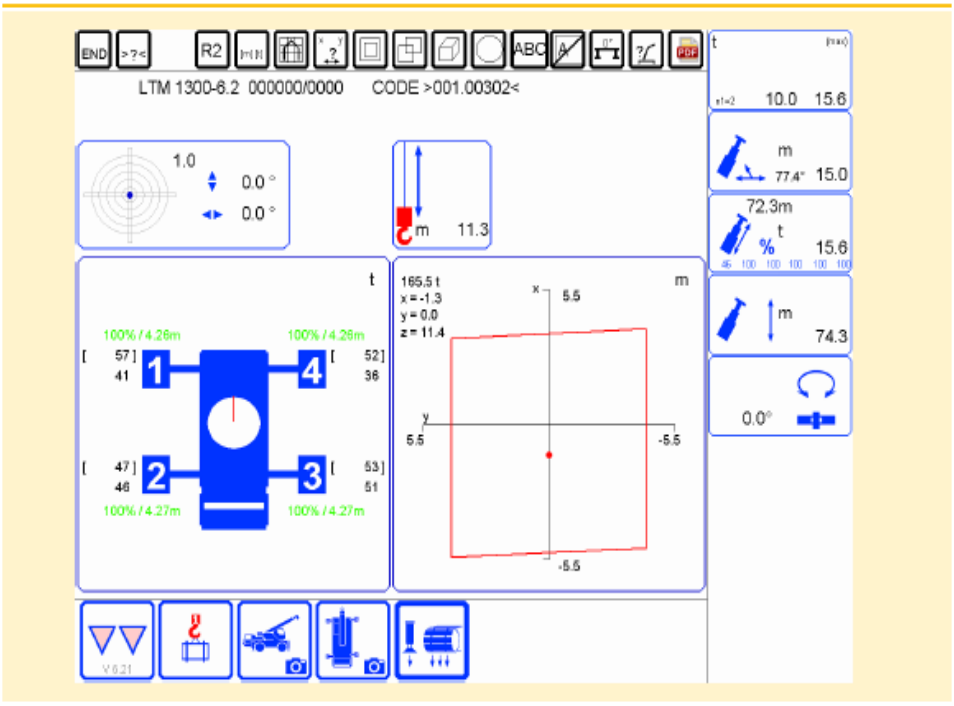

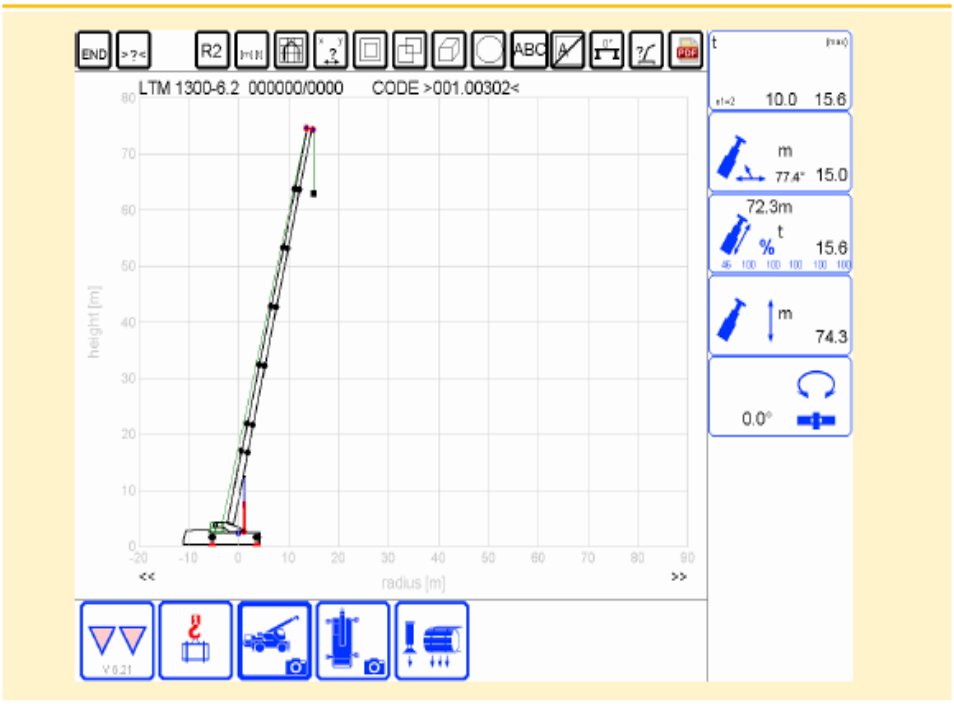

Lifting Team Contact Details

This Method Statement and Risk Assessment has been read and approved by the Site Management Team and the Clients Safety Department for the erection of the tower crane.

In accordance with BS7121 Part 5, please can you confirm the following: -

The name of the Appointed Person who will write your site-specific Lift Plan for the operation of the tower crane.	
Print Name	
CPCS No.	
Contact Details	

The name of the Supervisor responsible for all lifting operations on site	
Print Name	
CPCS No.	
Contact Details	

The Risk Assessment and site-specific Lift Plan has been prepared by the Client's Appointed Person for the operation of the tower crane: Yes/No*
If no, please state why

The Client has read, understood and will comply with all of the duties and responsibilities as defined in this method statement.
By signing the below, I am authorising on behalf of the Client, access to the Tower Crane for the duration of the crane hire for Bennetts Cranes employees and subcontractors working on behalf of Bennetts Cranes.

Name of Client (Company)			
Address of Site			
Signature		Print Name	
Position		Date	

Please sign and return by email to acknowledge receipt and confirm that the appropriately trained persons are in place to manage the lifts once the tower crane has been erected. Failure to return may delay erection of the tower crane.

***This page must be fully completed and returned to Bennetts Cranes prior to the erection of the tower crane. Failure to return this document will delay the erection process.**

Lifting Team Sign Off Sheet

By signing the below, I confirm that I have read and fully understood my duties and responsibilities as defined in the above Risk Assessment and Method Statement and will work in accordance with this.

Client	Charles Edward
Site Address	9 Nestles Avenue, Hayes, UB3 4SA
Tower Crane Make / Model	Jost JL216.16
Date of Operation	TBC

Print Name	Signed

Appointed Person		Client's Representative	
Signed		Signed	
Name		Name	
Date		Date	

Amendments to Issued Method Statement

Any amendments to the Risk Assessment and Method Statement must be detailed below and authorised by the Bennetts Appointed Person on site. Once authorised the Lifting Team are to be advised of the amendments along with the Clients Site Management.

Client	Charles Edward
Site Address	9 Nestles Avenue, Hayes, UB3 4SA
Tower Crane Make / Model	Jost JL216.16
Date of Operation	TBC

Appointed Person		Client's Representative	
Signed		Signed	
Name		Name	
Date		Date	