SHEET PILING (UK) LTD	**Tracked Excavator Lift Plan CAT328D**
	Date: **25/08/2022**
Lift plan Ref no:	**C1642-SPUK-LP-EJ-001-Rev0**
Sketch Ref:	N/A
Activity:	The off-loading of plant and material and the vibratory installation of sheet piles
Type of lifting equipment:	CAT328D LCR Hydraulic Tracked Excavator
Type of lift (Basic, Intermediate or Complex):	**Intermediate**
Date and duration of lifting operation:	**Start date:** **03/10/2022** **End date:** **03/11/2022**
Details of working area / where equipment will be sited (attach sketch if appropriate):	Working Platform
Name of hire company:	SPUK
Prepared by Appointed Person:	**Name**: Richard Greenwood **CPCS No**: 40517171 **Expiry Date: 14/10/2022**
Crane Co-Ordinator:	**Name:** N/a **CPCS No:** N/a **Expiry Date:** N/a
Crane/Lift Supervisor:	**Name:** TBC **CPCS No:** **Expiry Date:**
Excavator Operator:	**Name:** TBC **Category:** **CPCS No:** **Expiry Date:**
Slinger Signaler 1:	**Name: TBC** **Category:** **CPCS No:** **Expiry Date:**
Slinger Signaler 2:	**Name:** **Category:** **CPCS No:** **Expiry Date:**
****INCOMPLETE FIELDS ABOVE MUST BE RECTIFIED BY THE CRANE SUPERVISOR****	
Limiting Weather Conditions:	Wind 12.00 m/s – **NO LIFTING IN THUNDER AND LIGHTNING**
Method of communication:	Hand signals / Radio
Weight of unit (approx.)	34,500kg – Travelling Weight 37,180Kg – With Movax Hammer Fitted
Overall size of base with deployed stabilizers and blade	Length: 5020mm Width: 3440mm
Axle width	N/a
Calculated GBP	See further down in lift plan

Prepared by:	Richard Greenwood	
Signature	*Richard Greenwood*	
Date	26/08/2022	

Legislation and Guidance:

- LOLER `98 - Lifting Operation and Lifting Equipment Regulations 1998
- BS7121 Part 1 – Code of Practice for safe use of cranes (1- General)
- CPA and ALLMI – Safe use of Excavators for lifting operations

General Information:

- This lift plan classification is Intermediate (BS7121-1).
- Accessories stated in rigging study are minimum required, accessories with greater SWL can be used.
- Dimensions stated in each load case are maximum allowed dimensions for the load case.
- Length of multi leg chain slings can be adjusted to suit each individual load using shortening hooks. Shorter length lifting accessories can be used if WLL (and Grade) are same/or greater then lifting accessories stated in the load case.
- **Sling included angle not to exceed 90 at any point.**
- All attachments must be removed from quick hitch before any lifting accessories attached to lifting point
- Tracked Excavator must deploy both the front blade and rear stabilizers before any lift commences (if fitted)
- Slinger Signaler to have **CPCS A40a** to carry out **Free-on-tracks** operations.
- **Cross-carriage is not permitted**
- When working near the DLR asset, slew and height restriction device must be activated, if required as part of the SSofW
  - **Site Safety Observer (SSO) must approve operation on a case-by-case basis, if required.**

Restricted Zone (yellow)	An area that can only be accessed by **pre-authorized persons** who have the necessary competence to identify, understand and mitigate the risks present in that area. Examples include, but not limited to: • Third party/ Contractor controlled work areas with specific access. • Areas of limited numbers of people • Areas around piling Areas of a site which have controls in place such as crossing points under pipe bridges or overhead cables.	

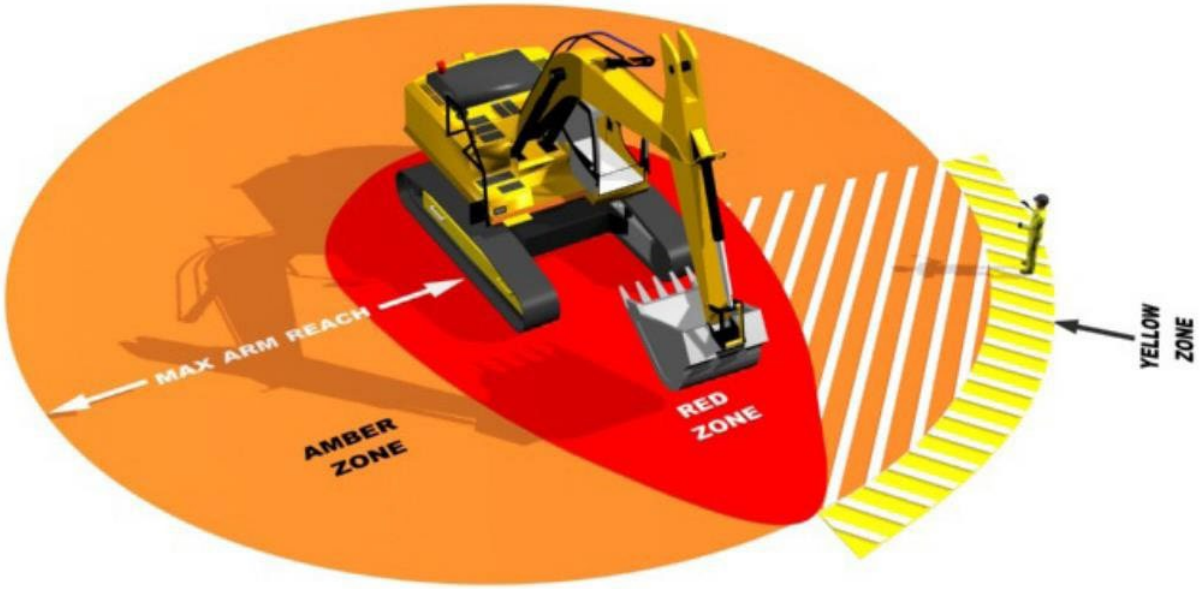
Sequence of Operations:

1. Appointed Person to brief Lift Supervisor (LS)
2. LS to brief all personnel involved in lifting operation
3. LS to check lifting equipment thorough examinations are in date
4. LS to check competency of all lifting operatives (i.e., CPCS, IPAF, etc.)
5. LS to consult with Temporary works coordinator to determine if Permit to Load is required
   - If permit to load is required, it must be issued to LS prior to commencement of works
6. Lifting Exclusion zone to be set up and enforced by Slinger/Signaler (SS) and LS
7. Machine operator and SS to carry out all pre-use check on all lifting equipment and accessories
8. Machine to be mobilized to area and set-up as per manufacturer's instructions
   - SS/LS to ensure correct configuration (including slew/height restrictor where required)
   - Excavator to deploy both the front blade and rear stabilizers (if fitted)
9. SS to select correct lifting accessories for the lift and attach to excavator
   - Lifting accessories stated in lift details are the minimum required, accessories with greater SWL and length may be used
10. SS to attach tag line to the load
11. Trial lift to be completed
12. SS to instruct operator to lift the load and place in required position
    - No hands to be placed on the load above shoulder height
    - Hands must be placed flat on the load avoiding corners and pinch points
13. Once the load is safe the SS will disconnect lifting accessories
    - SS to ensure the correct storage of all accessories
14. LS is to de brief the team and ensure the site is left safe and tidy and excavator is to de-rig as per manufacturers guidelines

Free-on-track duties:

1. SS to instruct operator to lift the load high enough to clear any obstacles
2. Align the upper structure of the machine with the undercarriage
3. Reduce the radius to a minimal remembering the load may swerve out while travelling
4. Raise dozer blade and stabilizers high enough to clear any obstructions (if Fitted)
5. Select power band dependent on the load being maneuvered.
    - Refer to operator's manual for more information
6. Select creep speed travel. Always maintain Creep travel speed.
7. Keeping the load close as possible to the ground travel the excavator to the required position.
    - Load must be placed on ground and lifting accessories checked every 20 meters
8. When traveling with load, do not apply sharp adjustments to the controls.
9. Dozer blade and stabilizers to be deployed before slewing upper structure and positioning load.

Know Your Safe Zones:



Yellow Zone:
All personnel involved with the plant operation must remain within this zone to maintain visual contact with the plant operator.

Amber Zone
Entry prohibited until positive visual contact is made with the plant operator, the slew arm/hydraulics grounded, and the machine is immobilized using the safety lever.

Red Zone
Entry prohibited unless the machine is completely isolated with the slew arm/attachment/bucket grounded, the machine immobilized using the safety lever and the engine switched off.

Hatched Zones
Denotes typical sight lines of the plant operator

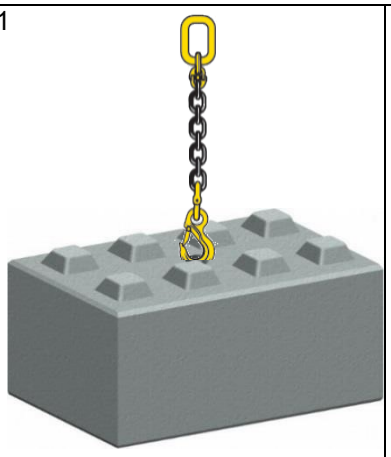
LIFT DETAILS		A	B	C	D
Description of load to be lifted		Weld Set	Fuel Bowser (Empty)	Toolbox	Gas Bottles
Max weight of load as advised		500Kg	1000Kg	500Kg	250Kg
Dimensions		1.50m x 0.50m x 0.50m	0.50m x 0.50m x 1.00m	1.00m x 1.00m x 0.50m	1.80m x 0.50m x 0.50m
Radius at which load is to be placed		Maximum Radius	Maximum Radius	Maximum Radius	Maximum Radius
Boom/Arm length to be used (if applicable)		3200mm Dipper Arm	3200mm Dipper Arm	3200mm Dipper Arm	3200mm Dipper Arm
Height of lift (where SWL varies with height)		Full Range	Full Range	Full Range	Full Range
Safe working load capacity at given radius/height		4200Kg	4200Kg	4200Kg	4200Kg
Conditions of SWL (e.g., cross carriage, over cab, 360°) **Wind speed limit**		360° **12 m/s**	360° **12 m/s**	360° **12 m/s**	360° **12 m/s**
SWL deductions for: Quick hitch, lifting accessories/equipment, other deductions for attachments: Total		250kg 150kg 0kg 400Kg	250kg 150kg 0kg 400Kg	250Kg 150Kg 0Kg 400Kg	250Kg 150Kg 0Kg 400Kg
Maximum available lifting capacity for load to be lifted		3800Kg	3800Kg	3800Kg	3800Kg
Utilisation % (*max reach)		79%	67%	79%	85%
Details of Rigging/Slinging Study					
Lifting Point	Attach Rigging Sketch (to include SWL Mode of any lifting accessories used)	Via fixed lifting eye on the machine	Via fixed lifting eyes on the bowser	Fixed Lifting Eyes	Central Lifting Eye
Centre of Gravity		Central	Central	Central	Central
Lifting Tackle Required **(to include SWL and length)**		1 x Set of Two Leg Chains 7.60Te 1 x Swivel Hook 6.00Te 1 x 6.50Te Shackle affixed to lifting eye	4 x 6.5Te Shackles 1 x Swivel Hook 6.50Te 1 x Set of 4 Leg Chains 6.7Te	1 x Set of Two Leg Chains 7.60Te 1 x Swivel Hook 6.00Te	1 x Set of Two Leg Chains 7.60Te 1 x Swivel Hook 6.00Te 1 x 6.50Te Shackle affixed to lifting eye
Method of slinging load		Rigging Study 1	Rigging Study 4	Rigging Study 2	Rigging Study 2

LIFT DETAILS		A			
Description of load to be lifted		Movax SG-60 Vibro-Hammer	Sheet Pile EZ19-700 x 14.0m	Sheet Pile Bundle of 4 EZ19-700 x 14.0m	
Max weight of load as advised		2360.00Kg	1131.20Kg	4524.80Kg	
Dimensions		Height – 2468mm Width – 1192mm	Height – 9500m Width 600mm	Height – 9500m Width 600mm	
Radius at which load is to be placed		Maximum Radius	Maximum Radius	7.5m	
Boom/Arm length to be used (if applicable)		3200mm Dipper Arm	3200mm Dipper Arm	3200mm Dipper Arm	
Height of lift (where SWL varies with height)		Full Range	Full Range	6.0m	
Safe working load capacity at given radius/height		4200Kg	4200Kg	6500Kg	
Conditions of SWL (e.g., cross carriage, over cab, 360°) **Wind speed limit**		360° **12 m/s**	360° **12 m/s**	360° **12 m/s**	
SWL deductions for: Quick hitch, lifting accessories/equipment, other deductions for attachments: Total		250kg 150kg 0kg 400Kg	250kg 150kg 0kg 400Kg	250kg 150kg 0kg 400Kg	
Maximum available lifting capacity for load to be lifted		3800kg	3800Kg	6100Kg	
Utilisation % (*max reach)		65.71%	25.95%	75.77%	
Details of Rigging/Slinging Study					
Lifting Point	Attach Rigging Sketch (to include SWL Mode of any lifting accessories used)	Via two number lifting eyes on the hammer	Bite of chains (Hitched)	Bite of chains (Hitched)	
Centre of Gravity		Central	Central	Central	
Lifting Tackle Required **(to include SWL and length)**		1 x Set of Two Leg Chains 7.60Te 1 x Swivel Hook 6.00Te 2 x 6.50Te Shackle affixed to lifting eyes	2 x Piling Slippers, 2 x 6.50Te Bow Shackles, 1 x Set of Two Leg Chains 7.60Te x 6.00m	1 x Set of Two Leg Chains 7.60Te 1 x Swivel Hook 6.00Te 2	
Method of slinging load		Rigging Study 2	Rigging Study 4	Rigging Study 2	

Rigging Studies:

Rigging Study 1

Arrangement is indicative only.

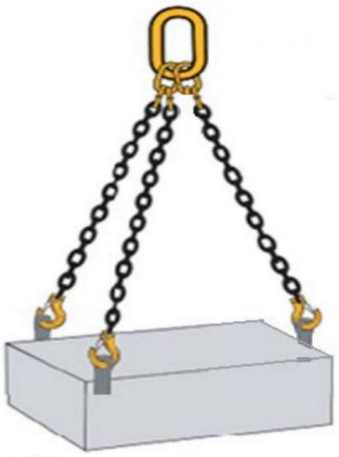


Rigging Study 2

Arrangement is indicative only.

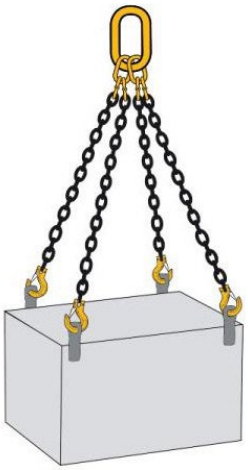
Rigging Study 3

Arrangement is indicative only.



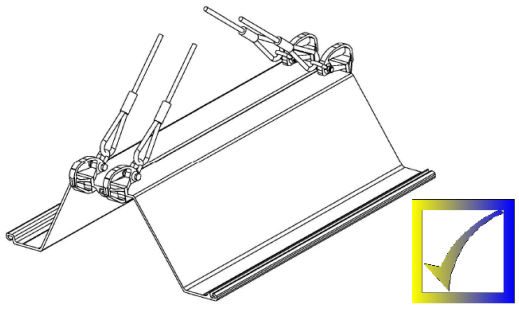
Rigging Study 4

Arrangement is indicative only.



Rigging Study 4

Arrangement is Indicative only



RISK ASSESSMENT			
Details of risk assessment: **Note:** This lift plan **MUST** be accompanied by a risk assessment for the proximity and stability hazards identified below. It is not sufficient to just tick the boxes.			
Adjacent structures	☒	Overhead cables	
Service covers	☒	Underground services	
Other lifting equipment	☐	Ground conditions	☒
Access / egress routes	☒	3rd Parties	☐
Railway lines	☐	Excavations	☐
Width restrictions	☒	Other hazards	☒
Non regular shape – center of gravity requires calculation / description	☐	Specify:	

SHEET PILING (UK) LTD

RISK ASSESSMENT

WORK LOCATION:

Newport Transporter Bridge

ELEMENT OF WORK:

Lifting operations

	Name	Signature	Date
Risk Assessment Assessor/Author:	**Elliott Jones**	**As per page 1**	**26/08/2022**

PERSONS AFFECTED

Employees: ☐ Other Workers: ☐ Public/visitors: ☐ young persons: Expectant Mother: ☐ Disabled: ☐ Others: ☐

HAZARDS

Mobile plant/vehicles ☐	Fall of material ☐	Fire / Explosion ☐	Overhead services ☐	
Deep excavations ☐	Noise / vibration ☐	Flying particles ☐	Buried services ☐	
Demolition ☐	Fumes / gas ☐	Collapse of structure ☐	Manual handling ☐	
Work on/adjacent to water ☐	Dust ☐	Contaminated ground ☐	Vehicle / plant overturning ☐	
Falls from height ☐	Heat ☐	Soft ground ☐	Confined spaces ☐	
Falls on level ☐	Lifting Operations ☐	Lighting levels ☐	Adverse weather ☐	
COSHH ☐	Fatigue ☐			

Others (List, including general Wellbeing)

Risks resulting from adverse effects

Risk Quantification

(Likelihood X Severity)

		Minor injury, insignificant damage or environmental impact	Non-Reportable Minor injury, damage or environmental impact	Reportable injury, moderate loss of process, limited property damage or environmental impact	Reportable Major injury, damage or environmental impact	Fatality, building loss, catastrophic environmental impact
		SEVERITY				
LIKELIHOOD		**1**	**2**	**3**	**4**	**5**
Near Certain	**5**	**L(5)**	**M(10)**	**H(15)**	**H(20)**	**H(25)**
Probable	**4**	**L(4)**	**M(8)**	**H(12)**	**H(16)**	**H(20)**
Possible	**3**	**L(3)**	**M(6)**	**M(9)**	**H(12)**	**H(15)**
Unlikely	**2**	**L(2)**	**L(4)**	**M(6)**	**M(8)**	**M(10)**
Remote	**1**	**L(1)**	**L(2)**	**L(3)**	**L(4)**	**L(5)**

Low Risk (1-5)	Moderate Risk (6-10)	Low Risk (1-5)
ACCEPTABLE	ALARP	UNACCEPTABLE

Notes:

1. **Low Risk** = Risk is **ACCEPTABLE**. No further preventative action required, consider cost effective solutions or improvements that impose no additional cost.
2. **Moderate Risk** = Work may only start if the risk has been reduced to as low as reasonably practicable (**ALARP**). Consider additional control measures that reduce the risk without significantly increasing cost.
3. **High Risk** = Risk is **UNACCEPATBLE** Do not start work or continue until risk level is reduced using additional and suitable control measures to a reasonably practicable level.
4. Control measures are to ensure that residual risks are reduced to as low as reasonably practicable. Where controls fail to reduce to an ACCEPTABLE or ALARP level the assessment must be referred to your Line Manager.

Remember: whilst it is possible to reduce the residual likelihood through the identified controls, the same controls will often **not** reduce the residual severity risk rating e.g., the residual severity of a fall from height remains the same unless the additional controls substantially reduce the potential fall from height distance or additional controls such as safety nets, for example, are incorporated.

Work Activity and Associated Hazard(s)	Persons at risk	Severity	Likelihood	Risk rating	Control measures to be implemented to mitigate risks	Residual risk Severity	Likelihood	Risk Rating
Lifting Operations – Excavator used as crane	E / SC / V	**5**	**3**	**15**	• Operator must be trained and competent • Operator must have a specific make and model familiarization • Operator must have “Lifting operations with excavator” endorsement • Excavator must be equipped with hose burst check valve and rate capacity indicator as minimum • Operator **must** use “Lifting Mode” when using excavator as crane • Operator to test RCI alarm and report any malfunctioning of RCI to supplier and SPUK Lifting team	5	1	5
Lifting Operations with Lorry Loader – Failure/Collapse of equipment, Dropped Load.	E / SC / V	5	3	15	• Operatives must be Trained and Competent Slingers. • All loads must be made secure and lifted in accordance with the approved Lift Plan. • Exclusion Zones must be Established and Maintained. • All Lifting equipment must be Tested, Certified and In Date • Pre-Use Checks must be carried out on all Lifting Equipment and Apparatus • All persons must keep clear of the load while lifting. • Before any lifting operation can take place with the Excavator an approved Lift plan MUST be in place and communicated to all personnel taking part in the lift • Excavator operator to always maintain visual contact with slinger during lifting operation • Minimum 600mm gap to be maintained between lifting equipment and any structure trapping point • Crane supervisor will ensure that the approved lift plan is followed • If for any reason the lifting operation cannot be carried out as per lift plan, the lifting operation must stop, and the Appointed Person must be contacted. • All variations to lift plan must be recorded.	5	1	5
Weather Conditions	E	3	3	9	• Lifting operations to cease and be made safe if wind speed exceeds the Stated Wind Speed Limit. • **Fog:** Crane supervisor, SS, and crane operator to monitor visibility to ensure eye contact. Crane operations to stop if eye contact is poor. • **Lightning:** Lifting operations must stop during storms, or when there is a risk of lightning strikes, with a minimum rest period of 30 minutes without thunder or lightning. • **Rain:** Consider the effect upon the load (Slippery, increased weight) • **Ice:** Consider Slippery conditions underfoot. Load can freeze on previously wet surfaces.	3	1	3

Work Activity and Associated Hazard(s)	Persons at risk	Severity	Likelihood	Risk rating	Control measures to be implemented to mitigate risks	Residual risk Severity	Likelihood	Risk Rating
					• **Snow**: Consider additional weight on the load. Local obstructions / Underground Services or covers could be obscured. • **Sun**: drink plenty of water to avoid dehydration. Use sun block to protect the exposed skin. Use tinted safety glasses to protect your eyes.			
Lifting of items with large sail area	E / SC / V	5	4	20	• Use additional taglines where the load permits to control unwanted movement • Where not possible to attach additional taglines the area around the load must be cleared • Profile the load to allow swift return to ground if required	5	2	10
Ground Conditions / Underground Services	E / SC / V	4	4	16	• Temporary works coordinator to be consulted prior to setup o If permit to load is required, it must be issued to LS prior to commencement of works • Crane Supervisor to check ground conditions prior to commencing work and report any issues.	4	1	4
3rd Party Construction Activities / Other Lifting Activities	E/SC	5	2	10	• Interface with other work activities must be managed and de-conflicted. • All exclusion zones must be obeyed.	5	1	5
Site Roads / Footpaths – Interface between pedestrians and plant	E / SC / V	4	3	12	• Exclusions to be established prior to commencing work • Plant Banksmen to control plant, and the general area.	4	1	4
Transport and Traffic – Collision, struck by/against	E / SC / V	4	4	16	• Vehicle Operators Trained and Competent. • Vehicle Banksmen to control vehicles • Hi-Vis to be worn. • Use segregated routes for Plant and Pedestrians. • Local controls for control and location of plant to be followed. • Establish and Maintain Exclusion Zones.	4	1	4

Work Activity and Associated Hazard(s)	Persons at risk	Severity	Likelihood	Risk rating	Control measures to be implemented to mitigate risks	Residual risk Severity	Residual risk Likelihood	Residual risk Rating
Working at height	E/SC	5	3	15	• Any delivery Vehicles must have suitable edge protection, or a fall arrest system installed. • Any vehicles requiring access must be fitted with suitable and sufficient fixed access steps	5	1	5
Manual Handling – Musculo-skeletal injury when manipulating lifting equipment.	E	2	3	6	• Operatives to be trained in Manual Handling. • Seek assistance when manual lifts exceed their personal limits or use mechanical means. • Operatives to be familiar with the equipment being used.	2	1	2
PPE Requirements	E	2	2	4	• PPE as mandated by Site Inductions must be worn: • Hard Hat (Orange Colour signifies Slingers) • Suitable Workwear • Hi-Vis • Safety Boots • Gloves • Light Eye Protection • Replace defective PPE	2	1	2
General Housekeeping – Slips Trips and Falls	E / SC / V	3	3	9	• All operatives to receive local induction and Activity Plan Brief including the risk of Slips, Trips and Fall • Operatives will clear the working area of redundant debris, Materials and Plant. • Lifting Equipment will be stored away from the point of work when not in use.	3	1	3
Pinch Points / Crushing - Pinch Points - Trapped under load	E / SC / V	4	3	12	• Where the crane creates a Pinch point (600mm or less), barrier off to prevent access. • Remain clear of the load in transit. (Hands/Feet/Bodies) • Operatives positioning load to be briefed, trained and competent. • Position loads using tag lines wherever possible • Nonessential persons to be excluded • No hands to be placed on the load until below shoulder height • Hands to be placed flat on load avoiding pinch points. • Utilize push/pull sticks where possible	4	1	4

Work Activity and Associated Hazard(s)	Persons at risk	Severity	Likelihood	Risk rating	Control measures to be implemented to mitigate risks	Residual risk Severity	Likelihood	Risk Rating
Load Integrity	E / SC / V	4	3	12	• Load must be secure • No loose items or debris. • Maneuver with Tag lines	4	1	4
Underground Services	E / SC / V	5	3	15	• No services present in designated Crane Mat area • Crane Supervisor to control setting up of the Excavator in accordance with Lift Plan.	5	1	5
Service Covers	E / SC / V	5	3	15	• Crane Supervisor and operator to ensure, that blade or outriggers are not on top of any service covers	5	1	5

Fatigue	E / S/C	5	3	15	• Approved Shift Pattern to be adhered to.
					  • Shift Pattern must allow sufficient rest time between shifts, allowing for travel time.
					  • Shift Pattern must allow sufficient non-working days to ensure operatives are rested.
					  • Agreed Working time is not to be exceeded.
					  • Specified breaks with suitable facilities must be taken.
					• Consider adequate rest times when changing shifts.
						5	1	5

Communications Failure - Radio Breakdown - Rolling fog	E / S/C / V/s	4	2	8	• Comms procedures to be agreed prior to commencement of works. • Action in case of loss of comms: ○ All Stop until contact re-established. • Use dedicated lifting radios when required.	4	1	4
Environmental Release - Oil Leak - Fuel Leak - Hydraulic leak - Refuelling spill	Environmental	3	3	9	• Plant to be issued with Spill Kit • Additional Spill Kits on the Working Platforms • Plant to be refueled at a designated Refueling area. • Plant Nappies and Drip Trays to be used when refueling.	3	1	3
Overhead Cables	E / SC / V	5	3	15	• Look out for overhead cables. • No lifts to be carried out with 10 meters of an overhead cable • No lifts to be carried out within 30m of the overhead 400kV cables	5	1	5

Work Activity and Associated Hazard(s)	Persons at risk	Severity	Likelihood	Risk rating	Control measures to be implemented to mitigate risks	Residual risk Severity	Likelihood	Risk Rating
Seasonal Working - Cold/ Icy Conditions - Slips trips and fails - Heat shimmer - Dehydration - Heat stroke	E / SC / V	5	4	20	• Ensure Pedestrian Routes are gritted in icy conditions • Increased stopping distances when temperature drops • Vehicle routes to be maintained in cold weather • Operator to consider increased stopping distances and reduce speed. • Sunscreen must be available for use. • In case of impaired visibility, stop operations and contact Appointed Person. • Extra Water station must be available during heat wave. Drink water at every 15 min. • Toolbox talks for relevant season to be carry out in March, June, September, and December.	5	1	5
COSHH Materials - Oils - Grease - Fuel	E / S/C	2	3	6	• COSHH Assessments carried out, controls Briefed and followed. • Appropriate PPE (per COSHH Assessment) for Refueling and Servicing activities.	2	1	2
Use of lifting attachments: - Forks - Grab	E / S/C	4	3	12	• Operator's manual to be available for attachments • Operator to have familiarization training on any attachments • Operator to ensure the security of any attachments • All personnel to keep clear when the machine is operating • Never exceed SWL of any attachments • Load must be kept close to the ground when pallet forks are used	4	1	4

Lift Capacities – Reach Boom (6150 mm)

All weights are in kg. Heavy Lift On.

Long Stick
3200 mm
Shoes
850 mm

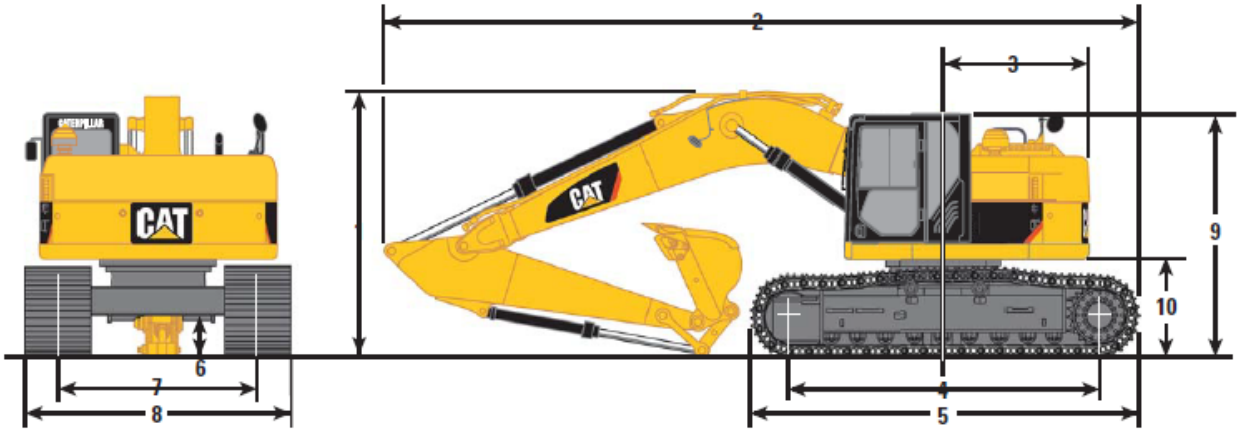
	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
															m
9.0 m													*4200	*4200	7.85
7.5 m									*6100	*6100			*4000	*4000	9.05
6.0 m							*8000	*8000	*6550	6500			*3900	*3900	9.80
4.5 m					*10 800	*10 800	*9050	8750	*8050	6350	*6000	4850	*3950	*3950	10.24
3.0 m					*13 550	12 500	*10 350	8350	*8750	6150	*7450	4750	*4100	3900	10.40
1.5 m					*15 700	11 650	*11 550	7950	*9350	5950	7450	4650	*4300	3900	10.30
0 m			*7000	*7000	*16 550	11 200	*12 200	7650	9500	5750	*7400	4600	*4700	4050	9.94
–1.5 m	*7450	*7450	*11 100	*11 100	*16 200	11 100	*12 200	7500	9400	5700			*5300	4400	9.29
–3.0 m	*11 850	*11 850	*16 600	*16 600	*14 850	11 150	*11 350	7550	*8750	5700			*6400	5200	8.26
–4.5 m			*16 150	*16 150	*12 200	11 400	*9200	7700					*5650	*5650	6.66

Load Point Height Load Radius Over Front Load Radius Over Side Load at Maximum Reach

* Limited by hydraulic rather than tipping load.
The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

Dimensions

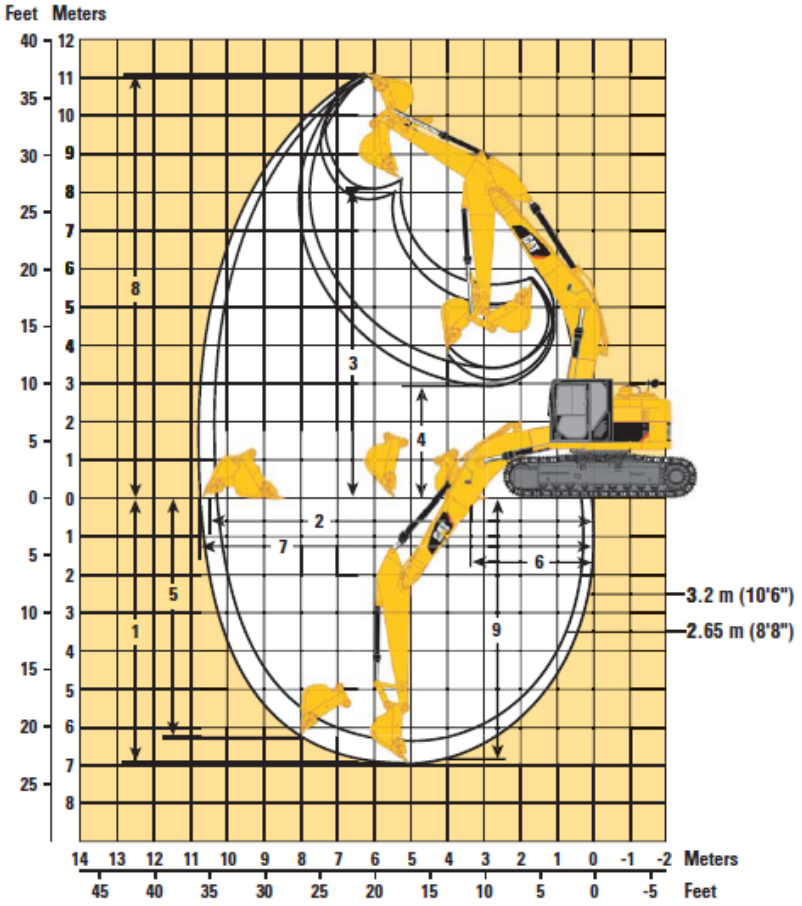
All dimensions are approximate.



Boom Options	Reach 6.15 m (20'2")	Reach 6.15 m (20'2")
Stick Size	**R3.2CB2 m (10'6")**	**R2.65CB2 m (8'8")**
1 Shipping Height	3370 mm (11'1")	3400 mm (11'2")
2 Shipping Length	9820 mm (32'3")	9820 mm (32'3")
3 Tail Swing Radius	1900 mm (6'3")	1900 mm (6'3")
4 Length to Center of Idler and Sprocket	4040 mm (13'3")	4040 mm (13'3")
5 Track Length	5020 mm (16'6")	5020 mm (16'6")
6 Ground Clearance	510 mm (1'8")	510 mm (1'8")
7 Track Gauge	2590 mm (8'6")	2590 mm (8'6")
8 Transport Width		
850 mm (34") Shoes	3440 mm (11'3")	3440 mm (11'3")
700 mm (28") Shoes	3290 mm (10'10")	3290 mm (10'10")
600 mm (24") Shoes	3190 mm (10'6")	3190 mm (10'6")
9 Cab Height	3190 mm (10'0")	3190 mm (10'0")
10 Counterweight Clearance	1200 mm (3'11")	1200 mm (3'11")

Working Ranges

All dimensions are approximate.

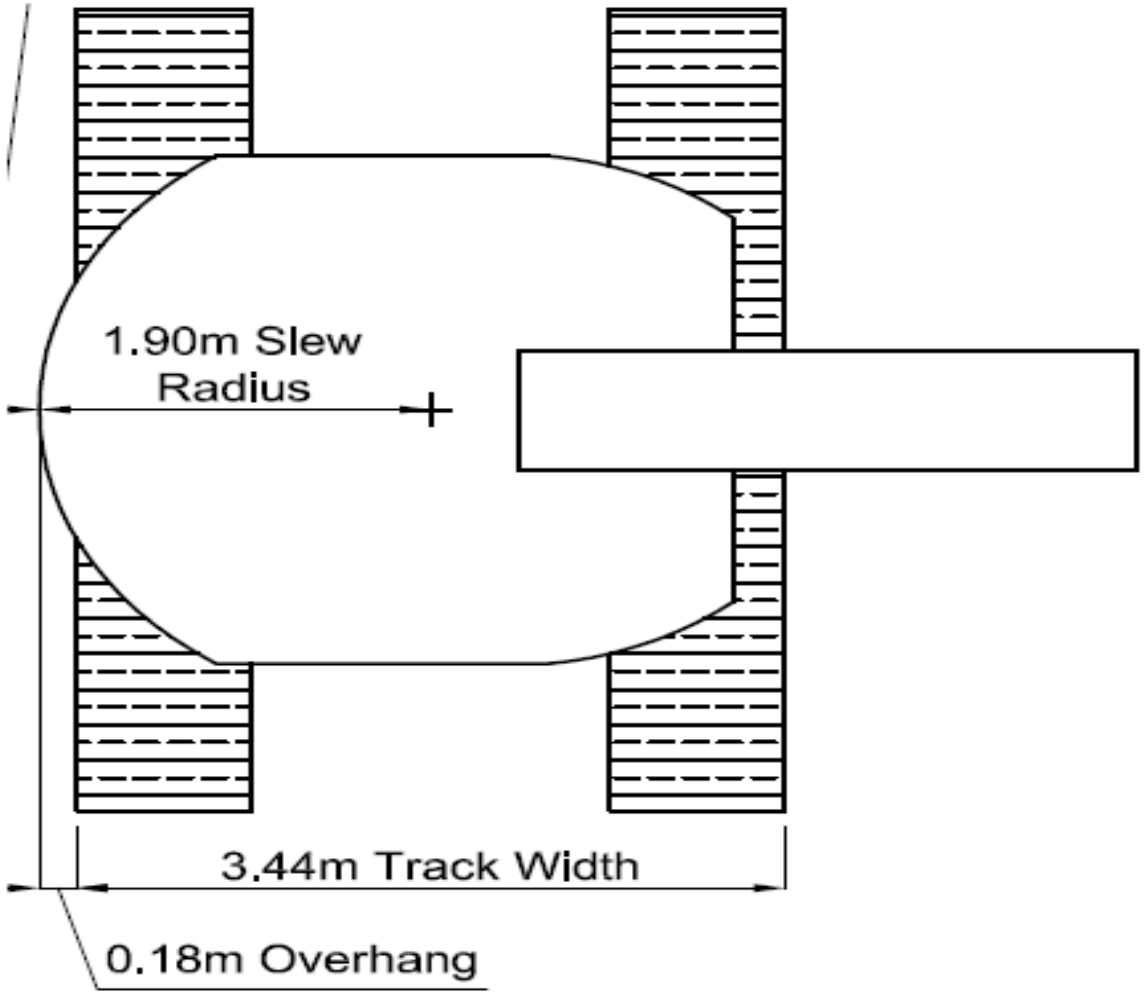


Boom Options	Reach 6.15 m (20'2")	Reach 6.15 m (20'2")
Stick Size	**R3.2CB2 m (10'6")**	**R2.65CB2 m (8'8")**
Bucket	**HD 1.2 m³ (1.57 yd³)**	**HD 1.2 m³ (1.57 yd³)**
1 Maximum Digging Depth	6920 mm (22'8")	6370 mm (20'11")
2 Maximum Reach at Ground Level	10 560 mm (34'8")	10 080 mm (33'1")
3 Maximum Loading Height	8040 mm (26'5")	7820 mm (25'8")
4 Minimum Loading Height	2990 mm (9'10")	3560 mm (11'8")
5 Maximum Vertical Wall Digging Depth	6260 mm (20'6")	5730 mm (18'10")
6 Minimum Front Swing Radius	3412 mm (11'2")	3392 mm (11'1")
7 Maximum Reach	10 770 mm (35'4")	10 310 mm (33'10")
8 Maximum Cutting Height	11 110 mm (36'5")	10 910 mm (35'10")
9 Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6760 mm (22'2")	6190 mm (20'4")

PLANT LOADINGS

PILING RIG & CRAWLER CRANE BEARING PRESSURES

Plant Manufacturer & Model	Track Pad Width (m)	Track Bearing length (m)	Working Weight (Te)	Max Crowd Force (kN)	Max Extraction Force (kN)	Case 1 Loading Standing or Travelling		Case 1 Loading Handling		Case 2 Loading Installation		Case 2 Loading Extraction [1]		Notes
						Max Rectangular Bearing Pressure (kN/m²)	Equivalent Track Bearing Length (m)	Max Rectangular Bearing Pressure (kN/m²)	Equivalent Track Bearing Length (m)	Max Rectangular Bearing Pressure (kN/m²)	Equivalent Track Bearing Length (m)	Max Rectangular Bearing Pressure (kN/m²)	Equivalent Track Bearing Length (m)	PLEASE NOTE: Track Loadings and Track Lengths quoted are based strictly on the following operational limitations noted below for each item of plant.
Sheet Piling Rigs														
ABI TM 13/16 SL	0.60	3.85	50	90	175	200	3.08	N/A	N/A	204	2.32	291	2.30	Maximum Working Radius = 5.79m Maximum Crowd Force = 58kN Maximum Extraction Force = 109kN
ABI TM 14/17 SL	0.60	3.85	52	90	175	200	3.10	N/A	N/A	204	2.32	291	2.30	Maximum Working Radius = 5.79m Maximum Crowd Force = 58kN Maximum Extraction Force = 109kN
Bauer RTG 16	0.70	4.15	52	140	200	231	2.15	N/A	N/A	124	3.11	355	1.39	Maximum Working Radius = 5.29m Maximum Crowd Force = 60kN Maximum Extraction Force = 50kN
Bauer RTG 19	0.70	4.15	60	140	200	243	2.38	N/A	N/A	147	3.19	335	1.68	Maximum Working Radius = 5.29m Maximum Crowd Force = 60kN Maximum Extraction Force = 50kN
Bauer RTG 21	0.70	4.42	78	140	260	343	2.23	N/A	N/A	222	2.91	372	1.85	Maximum Working Radius = 5.91m Maximum Crowd Force = 60kN Maximum Extraction Force = 20kN
ABI TM 18/22 HD	0.70	4.80	82	120	200	203	3.49	N/A	N/A	215	2.52	313	2.64	Maximum Working Radius = 5.70m Maximum Crowd Force = 120kN Maximum Extraction Force = 200kN
ABI TM 20 LR • Tracks out. • Maximum reach.	0.90	4.40	84	180	180	260	2.38	N/A	N/A	199	2.36	315	1.87	Maximum Working Radius = 8.04m Maximum Crowd Force = 120kN Maximum Extraction Force = 120kN
ABI TM 20 LR • Tracks in. • Maximum reach.	0.90	4.40	84	120	120	267	2.38	N/A	N/A	205	2.36	324	2.08	Maximum Working Radius = 8.04m Maximum Crowd Force = 120kN Maximum Extraction Force = 120kN
ABI TM 12/15 H Long Reach	0.70	4.51	62	90	100	194	2.77	N/A	N/A	121	3.56	320	1.70	Maximum Working Radius = 8.08m Maximum Crowd Force = 72kN Maximum Extraction Force = 80kN **Handling of Sheet Pile is NOT Permitted**
CAT 328D LCR Excavator Piling Rig	0.85	4.05	34	80	80	114	2.89	N/A	N/A	219	1.01	191	1.81	
DOOSAN DX255 Excavator Piling Rig	0.80	3.85	28	60	60	113	2.38	N/A	N/A	185	1.05	152	1.96	
Crawler Cranes														
Sennebogen 643E	0.70	4.40	42	N/A	N/A	121	2.94	257	3.28	-	-	-	-	Maximum Radius / Maximum Load Minimum Radius / Maximum Load
Sennebogen 653E	0.70	4.40	50	N/A	N/A	94	3.82	241	1.92	-	-	-	-	Maximum Radius / Maximum Load Minimum Radius / Maximum Load
Sennebogen 673E	0.70	5.10	70	N/A	N/A	184	2.66	291	2.46	-	-	-	-	Maximum Radius / Maximum Load Minimum Radius / Maximum Load
NCK Nova 50	0.85	4.50	54	N/A	N/A	124	4.50	235	2.10	-	-	-	-	Maximum Radius / Maximum Load Minimum Radius / Maximum Load


1.90m Slew
Radius
3.44m Track Width
0.18m Overhang

Record of Briefing

By signing this lift plan, I confirm that I am fully aware of the details of this lift plan, and I will follow the procedures set out within this document.

Name (print)	**Employer**	**Signature**
Comments:		
Review of comments made: Y/N		

REMEMBER: If for any reason the lifting operation cannot be carried out as per lift plan, the lifting operation must stop, and the Appointed Person must be contacted.

Excavators

Contract:	**Contract no:**	
Hire / supply company details:		
Type of machine:	**Vehicle registration / identification number:**	**Dates of use:** .....

CHECKS required	**Not used as a crane**	**Used as a crane**
12 monthly examinations		
Weekly inspection records up to date		
SWL marked / load chart visible		
Wing mirrors in place and convex rear mirrors / camera fitted on excavators over 5 tons		
Operators manual available		
Operator has had familiarization training for this make and model of machine		
Notice in cab: *Do not use this excavator as a crane*		
Rated capacity indicator		
Check valves fitted to boom and dipper circuits		
Crane hook or shackle properly fitted, SWL marked and test certificate		
Lifting gear to be used; 6 monthly examination certificates		
Operator has received training in lifting operations CPCS Category A58C or A59C as appropriate to this machine		
Lift plan completed and briefed		

Quick hitch	YES	NO
Is a quick hitch fitted to this machine? (if yes, complete below)		
Is the operator trained in use of the quick hitch fitted to this machine?		
Is a copy of the quick hitch operator manual in machine?		
Does the daily checklist include checks on the quick hitch?		
If the machine is 10 ton or more, does it have a fully automatic, two pin capture quick hitch with an automatic mechanical backup locking system?		
Are there visual and audible warnings of initial release / quick hitch open in the cab?		
Are the quick hitch activation controls designed to prevent? unintentional activation? (i.e. two independent controls / switches which must be activated simultaneously to operate)		
If machine is less than 10 tonnes and is not capable of being fitted with a fully automatic, two pin capture quick hitch with an automatic mechanical backup locking system - does it have a fully manual quick hitch fitted?		
Does the risk assessment for the operation of this machine identify adequate controls for the operation of the quick hitch and has the content of the risk assessment has been briefed to the operator?		

Operator's name: ..... **Driving license checked:** YES / NO **Age 21 or over**

CPCS card number: ..... **Expiry date:** .....

CPCS Logbook up to date: YES / NO

Operator on site competence assessment: YES / NO

Check completed by – Name: ..... **Date:** .....

Amendments Record:

All variations to this Method Statement / Lift Plan (including drawings) must be notified to the Appointed Person before proceeding with the Lift. The details of the variations, together with the comments of the Appointed Person must be noted below.		
Variation Details No. 1	**Time Contacted AP**	**Initials**
Comments From Appointed Person	**Permission To Proceed**	**Initials**

All other details are as per the Method Statement, Lift Plan		
Appointed Person	**Signature:**	**Date:**
Lifting Supervisor	**Signature:**	**Date:**