

Risk Assessment & Method Statement for a CPA Contract Lift
NMT CRANE HIRE WILL PROVIDE A CONTRACT LIFT SERVICE IN COMPLIANCE WITH BS7121 PARTS 1 & 3 AND LOLER 98 (LIFTING OPERATIONS AND LIFTING EQUIPMENT REGULATIONS)

CLIENT: XXXXX
 CONTACT : XXXXX
 TEL : XXXXX
 E-MAIL: [XXXXX](#)
 SITE: XXXXX
 SITE CONTACT: XXXXX
 TEL: XXXXX
 OPERATIONS: MOBILE CRANE OPERAION TO ROOFING MATERIALS TO INLCUDE 15MTR ROOF SHEETS, ROOF LINERS GUTTERING AND ALL ANCILLARY ITEMS.
 DATE ON SITE: **TUESDAY 30TH JANUARY 2024 – 0600HRS**
MULTIPLE VISITS – 2 DAY PLANNED OPERATION PER VISIT

PREPARED BY/ APPOINTED PERSON	XXXXXXXX (CPCS No XXXX)
Phone No.	07525 598548
Signed	<i>Gene White</i>
Date	09/01/2024
Alterations must be approved by Appointed Person & revision of RAMS sent to site.	Page: Page: Page: Page:
Page 2. Introduction – 1. 3. Site Details - 2 4. The Lift - 3 5. The Equipment - 4 6. Weather – 5 / Communications – 6 / Initial Conditions – 8 / Certification - 9 7. Lift Procedure rigging and de-rigging of Crane 8. Lift Procedure a method of operation - 10 9. Lift Procedure a method of operation – 10 / PPE – 11 / Variations to method statement - 12 10. Toolbox Talk Attendance Record Form 11. Workplace Inspection Report 12. Pre-Lift Check Points - Crane Erection/De-rig Checklist 13. Site Specific Risk assessment 14. Site Specific Risk assessment 15. Site Specific Risk assessment 16. Pre delivery Checklist Attached - Site Specific Diagrams, rigger loadings, and duty charts.	

INTRODUCTION

- 1.1 It is the aim of this Method Statement to define and describe the equipment and safe procedures which are to be employed by NMT Plant Hire Limited to carry out lifting operations in accordance with the following:

LEGISLATION	
Health and Safety at Work Act 1974	√
Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)	√
Provision and Use of Work Equipment Regulations (PUWER) 1998	√
Control of Substances Hazardous to Health Regulations 2002	√
Manual Handling Operations Regulations 1992	√
CDM Regulations 2015	√
APPROVED CODES OF PRACTICE	
BS7121 Safe Use of Cranes part 1 – General 2016	√
BS7121 Safe Use of Cranes part 3 – Mobile Cranes 2017+19	√
Other	
CPA Standard Terms and Conditions for a contract for the Lifting & Movement of Goods Involving Crane Operation	√

1.2 **THE APPOINTED PERSON**

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

1.3 **THE LIFT SUPERVISOR**

Prior to the commencement of the works The Lift Supervisor must ensure that all site personnel are adequately briefed on the contents of this Method Statement. This briefing shall take the form of a short 'Toolbox Talk'. The Lift Supervisor must liaise with the Appointed Person should site circumstances require material change to the methods to be employed during the operation. The RAMS must be revised by the appointed person and sent to lift supervisor/site

1.4

BRIEF SCOPE OF WORK:
ROOFING MATERIALS

1.5

LIFT CLASSIFICATION		
BASIC LIFT	STANDARD LIFT	COMPLEX LIFT
	√	

THE SITE

2.1 SITE INFORMATION

Enabling Works required by client/others	Clear access no obstructions This is the responsibility of the site manager as stated by the CPCS
Access/Egress	Clear of all hazards, other vehicles and personnel.
Overhead Cables/obstructions	STEEL CABLE RUN
Ground Conditions – where crane is to work Note size of pans supplied as standard.	<i>Note: Client is responsible for ensuring that the ground conditions are suitable to accept the calculated loadings as shown.</i> STONED/TYPE 1 - CRANE TO USE STANDARD MATS 2.4MTR X 1MTR SITE TO SCAPE BACK ANY SLUDGE TO REVEAL STONE/CRUSH CONCRETE.
Underground Services	Rig to avoid – as per Lift plan
Underground Voids/Vaults	None within the cranes rigging zone
Traffic Management performed by	SITE/GEO TO BARRIER OFF CRANE WORKING AREA'S TO CREATE EXCLUSION ZONES
Local Authority concerned	N/A
Road Closure details	N/A
Permit Times	SITE WORKING TIMES

Client shall provide:

1. Safe access and egress (traffic management, where required) for the delivery of the crane, support vehicles and personnel. Other site activities should not impede on the access routes and working area of the crane, etc.
2. Firm, level ground to enable the crane and its support vehicles to travel and safely set-up in positions shown on the attached drawing. A clear, level, hard standing area for the crane capable of withstanding the anticipated outrigger loads to be imposed as detailed in this Method Statement.(See attached rigger loadings)
3. Their Risk Assessment document in accordance with COSH regulations, which identifies any hazards (environmental or other) that may be present within the works area, and suitable precautions to be arranged.
4. All necessary information relating to ground conditions. Confirmation of the location of any underground services or vaults/voids in the agreed crane position(s). This is in accordance with BS7121 (part 1).
5. Personnel required to carry out mechanical installation/removal of the equipment being lifted.

Client to ensure:

- a) Weights quoted in this method statement are correct.
- b) Lifting points on equipment are suitable.
- c) Items lifted are in no danger of being damaged by inward force of slings during lifting.
- d) Weather conditions are within scope of 5.1 as specified in this method statement.
- e) There are no height restrictions with regard to local airfields or airport.
- f) Appointed person is informed of centre of gravity of loads if not central.

THE LIFT

3.1 DETAILS OF THE LIFT (S)

Description of item	ROOFING MATERIALS – TO INCLUDE: 15MTR ROOF SHEETS - ROOF LINERS/PACKS - GUTTERNG - ANCILLIARY ITEMS
Dimensions	15 X 1 X 1MTR - MAX
Weight	600Kg
Lifting Points	2point lift attached to manufacturers lifting points on roof sheet beam and then using 7no 6mtr 2te webb slings cradled
Centre of gravity	Crane Supervisor to adjust accordingly

LIFT RADIUS

MAIN ENTRANCE

Distance: Centre of crane/uplift position	6mtr & 8.2mtr as per lift plan
Height of building	20MTRS
Distance of lift into building	48.6mtr & 46.4mtr as per lift plan
Lift radius	54.6mtr – max radius 60mtrs

LIFT WEIGHTS

Estimated Weight of lift Given Weight of lift	600kg
Weight of hook block	INTEGRAL
Weight of tackle	600kg INCLUDING SLINGS
Weight of fly jib stowed on base section of boom	N/A
Weight of s/lift stowed on base section of boom	n/a
Gross lift weight/capacity used	1,200kgs 68.2%

3.2 GENERAL INFORMATION

Describe any unusual or notable features of this lifting operation:

IF WIND CONDITIONS DICTATE USE SHORTEST POSSIBLE TOWER LENGTH

GEO TO ENSURE GROUND IS SCAPED BACK TO REVEL HARD STANDING FOR EACH CRANE RIG POSITION.

THE EQUIPMENT

4.1 Cranes

	Main Crane	
Make & Type	SPIERINGS SK1265 – AT6	
Main Boom Length	60mtr	
Counterweight	13.6te	
Fly Jib	N/A	
Luffing Fly Jib	N/A	
Outrigger Base	7.95M X 7.66MTR	
Hook Block SWL	10te	
Standard Outrigger Mats	2.4m X 7.66MTR STEELS	
Additional Mats		N/A

4.2 Crane Capacity

	Main Crane
SWL of Crane	1,900kg / 1,700kg
Radius	54.6mtr / 60mtrs

4.2a Outrigger Loads

	Main Crane
Maximum Outrigger Point Load	38,500Kg
Mat Area Provided	2.35mtr sq
Resulting Ground Pressure	16,383kg

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

4.3 Lifting Tackle (x 1.4 factor of max. load @ 90°) Avoid lift angles greater than 90°

1NO 6MTR 4.25TE 2LEG CHAIN SLINGS
 1NO ROOF SHEET BEAM 12MTR
 8NO 2TE 6MTR NYLON SLINGS (MIN LENGTH AND MIN SWL)
 2WAY RADIOS

STANDARD TACKLE AS CARRIED ON CRANE

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

WEATHER CONDITIONS

5.1

The maximum wind speed in which this operation can take place is 14 METRES/SECOND OR 32 MPH. NB. Sail factor of load may considerably reduce this figure.

Note that local conditions and safety of personnel may dictate that the Lift Supervisor and Crane Operator(s) have to stop lifting operations at a lower wind speed than specified above. Lifting operations must stop during storms, or when there is a risk of lightning strikes. Other weather conditions that may affect lifting operations and must be considered are 1. Poor light 2. Torrential rain 3. Fog and mist 4. Snow and ice.

COMMUNICATIONS

6.1 Communication between Lift Supervisor and Crane Operator shall be maintained by means of:

Hand Signals	√	Two-Way Radios by NMT	√

Constant contact must be maintained when working 'blind' and crane driver will cease operations when contact is lost.

OWNERS OF CRANE

7.1 NMT Plant Hire Limited

INITIAL CONDITIONS

- 8.1 The working area must be cleared to allow the crane assembly and lifting operations to take place in a safe manner without endangering miscellaneous personnel, not directly involved in the lifting operations. All enabling works (by client/others) to be completed **prior** to crane arrival.
- 8.2 All personnel not directly concerned with the lift must keep out of the crane assembly and rigging areas. If necessary, the working area should be cordoned off or otherwise secured against personnel entry.
- 8.3 The Lift Supervisor shall make himself known to all personnel, (client, other sub-contractors on site), and conduct a 'toolbox talk' prior to commencing operations.
- 8.4 Under no circumstances shall the crane be moved for lifting purposes if not under instruction by the Lift Supervisor.
- 8.5 All cranes to be left unattended, for a period, shall be left in safe condition (jib retracted or laid down if possible) with no load on the crane hook. Cranes shall be shut down and isolated as per manufacturer's instructions, secured and locked.
Working under suspended loads
 Where it can be avoided, loads should not be suspended over occupied areas. Where it cannot be avoided, the risks to people must be minimised by safe systems of work and appropriate precautions. Where loads are suspended for significant periods, the area below them should be classed as a danger zone, where access is restricted.
 Note: An exclusion zone around crane will be in place, with barrier tape or temporary fencing, to prevent pedestrians or other contractors entering the lifting area.

CERTIFICATION

- 9.1 Copies of statutory test certification and inspection reports will be available for inspection prior to any lifting taking place. NMT personnel carry their training certificates with them and are available at any time.

Operation: Assembly & Disassembly of Mobile Tower Crane – Generic

1. Mark out position of the base machine using road-marking paint (Optional)
2. Ensure the erection area is cleared sufficiently to permit the safe assembly of the crane.
3. Drive the base machine into the working position.
4. Operator to move to right side of carrier and turn cut off switch to "on" position, remove ballast lock bar.
5. Open left control panel and turn 1st key below Spiering's logo to position 1. Turn switch 2, cab/remote, to remote.
6. Release main hook block retaining frame.
7. In control panel, turn switch 1 to position 1-11.
8. From front cabin, lock suspension and level crane zero degrees on wheels.
9. Remove remote controls from front cabin, using remote set outriggers to short-rigged duties @ 5.72metres and slide out rigger feet into position. If required install rigging mats and level crane. If required, this action can be completed from front cabin or via remote.
10. In left control panel depress 5th switch to set engine revolutions. Check first 2 gauges to ensure 400Volts and 50Hz.
11. Depress Auto switch "A" on main remote control, main tower will rise from stowage position; ensure sufficient grease is on tower lock pins and slides.
12. With Auto switch "A" on main remote control depressed observe hook block to ensure it does not strike trolley. "A" frame will automatically deploy and lock.
13. Tower will lock via lower locking pins, once pins are engaged an audible alarm will sound to confirm locked.
14. On remote control move "trolley out" lever forward to release davit arm.
15. Depress 1st button on left on remote control to release slew lock pin.
16. On remote control, trolley in, hoist and slew to position rigging hook over centre of main steel support mats. Sling mats as required. NB: SWL of rigging hoist is 1000kgs.
17. Using remote control, reposition main steel support mats approximately 10 cm from edges of out rigger feet.
18. Slew turntable to re-align slew lock pin and depress 2nd button from left on remote control marked "P" to engage slew brake, once engaged, using remote engage the main slew pin. Visual check to ensure pin is located.
19. Using the remote, lower the davit arm and hoist up to engage rigging hook block. Trolley in to re-engage davit arm into stowage bracket.
20. Using out rigger remote control, deploy out riggers to full blocked duties, ensuring out rigger feet are in centre of main steel support mats. Level crane to zero degrees.
21. From chassis cab, raise and lock suspension, once raised ensure wheels are clear of ground, switch off front cab.
22. Operator to check riggers for ground subsidence ensuring all riggers are taking weight.
23. In main control panel, check blue lamp for intermediate out riggers is off, if illuminated, turn out rigger control key to position "1" and release, blue lamp will go out indicating full blocked duties.
24. Determine if short of full tower is required.
25. For short tower: behind top auto lubrication system remove from stowage qty 4 tie bar locking pins and insert into tie bars.
26. For full tower: remove qty 4 locking pins from tie bars and insert into stowage bracket, ensure pins are located correctly in brackets as sensors need to be activated.
27. PHASE ONE COMPLETED
28. Ensure no obstructions are in the vicinity of counterweight.
29. Press Auto button on main remote control to deploy counterweight into locked position. Ensure counterweight locked.
30. Press Auto button on main remote control to deploy main mast and jib. Operator to ensure at this stage that tie bars are free and no cables are snagged.
31. Via remote control, unpin turn table and slew to a position with sufficient clearance to raise mast and jib. If wind speed dictates, wind direction should be to the rear of the mast in line with the jib.
32. Depress auto button on remote, "A" frame will raise engaging jib flap rope, jib will pin.
33. With auto button on remote depressed, trolley will release, and jib deploy. NB: Operator to observe rear ram on mast until at lowest position, mast will pin, and ram will release pressure – Mast Pinned.
34. With auto button on remote depressed, person lift will move down mast to carrier level. Jib rope catch at far end of jib will release and final jib section will swing around to 60 metres length.
35. Audible warning will sound indicating end of phase 2.
36. PHASE TWO COMPLETED.
37. In main control panel, depress green engine revolution switch to lower engine revolutions. Turn first switch from position 1 -11to position 11.
38. Crane is now in saddle jib working configuration.
39. TO CHANGE JIB CONFIGURATION.
40. In main control panel, turn first switch to position 1-11, switch to remote on switch 2.
41. In main control panel, turn switch from saddle to luffed position, green lamp will illuminate. Press green button to increase engine revolutions.
42. On remote control press button "P" to engage slew brake. Once engaged depress button "A" and hold.
43. Trolley will return 2-4 metres, top clamps open and luffing hydraulic cylinder will close to raise main boom to 30 degrees off set.
44. With 30 degrees achieved, clamps lock into position. Trolley returns to 52 metres radius engaging self-level sprag.
45. Audible alarm sounds: trolley returns 3-4 metres.
46. Audible alarm sounds at base of crane confirming setup completed.
47. In main control panel, change switch from position 1-11 to 11.
48. If working from remote change switch in main control panel to remote/antenna position. If working from main cabin turn switch to cabin position.
49. Final safety checks to be completed by Operator.
50. Crane ready for work.

Emergency Contact Numbers
Office Telephone 01234 331177

LIFT PROCEDURE

- 10.1 The crane, together with associated labour and tackle will arrive on site at XXXX, Aylesford, at 0730hrs on dates as stated on page 1 to assist in the lifting and installing of all roofing materials and associated lifts.
- 10.2 Lifting supervisor will meet client representative and carry out 'toolbox talk' with all personnel involved in the lifting operation. When this has been completed, all involved in the lifting operation must sign the register.
- 10.3 Crane to drive into position, as shown on drawing, under the control of Slinger/Signaller, who are included within the Method Statement.
- 10.4 Crane will rig-up on pre laid mats as stated above (4.1) and as directed by the manufacturer's operations manual which will be adhered to at all times.
- 10.5 All personnel assisting with rigging/derigging of crane to be under crane operator's guidance at all times.
- 10.6 Upon completion of rigging the crane, the operator will telescope the main boom out to the lengths as above (4.1) and perform a test lift to maximum radius without load, test radii.
- 10.7 The operator will lower the hook block to ground level.
- 10.8 Lifting tackle for executing lift will be placed on hook and checked as correct by Lift Supervisor.
- 10.9 Hook of crane hoisted into air.
- 10.10 Crane will now be slewed over item to be lifted and lifting tackle attached, as per tackle sketch.
- 10.11 Slinger/Signaller will now instruct operator by means of hand signals or two-way radios to slowly hoist-up to take the slack out of the tackle.
- 10.12 Slinger/Signaller will now 'plumb' boom head of crane vertically above lift.
- 10.13 Tag lines will now be attached to lift.
- 10.14 Slinger/Signaller will now CHECK WITH CRANE DRIVER IT IS SAFE TO LIFT (WIND/ ADVERSE WEATHER ETC.) and instruct operator to hoist item just clear of ground.
- 10.15 Lift Supervisor will now check for correct slinging and adjust, if necessary.
- 10.16 Continue hoisting, as required, until clear of obstructions. Slinger/Signaller will instruct operator to slew crane (left/right).
- 10.17 Slinger/Signaller will now instruct operator to carry-out motions required to lower lifted item into a position advised by the client.
- 10.18 Operations will cease once item is just landed to enable client to check position and orientation of item.
- 10.19 Once client has confirmed position, Slinger/Signaller will instruct operator to lower off all weight of lifted item.
- 10.20 Lifting tackle will now be released from item.
- 10.21 Slinger/Signaller will instruct operator to hoist-up until lifting equipment is clear of all obstructions

- 10.22 Slinger/Signaller will now instruct operator to slew crane (left/right).
- 10.23 Slinger/Signaller will now issue instructions to operate to lower-down over next item to be lifted.
- 10.23 Operations 10.10 to 10.23 (inclusive) will be repeated, until all items have been lifted and placed in to position.
- 10.24 Once all lifting has been completed, crane operator to lower hook block to ground.
- 10.25 Lifting tackle will be removed from hook block and stored away.
- 10.26 Crane will de-rig and move off site.

PERSONAL PROTECTIVE EQUIPMENT

- 11.1 The appropriate PPE will be worn at all times. NMT Plant Hire Limited must be informed of any other specific requirements. Any items not listed below will be provided by the client/main contractor.
- 11.2 Hard hat,- gloves,- safety shoes/boots (laced/slip on),- Hi-vis jacket/vest,- harness/lanyard,- overalls.

VARIATIONS TO METHOD STATEMENT

- 12.1 Any and all significant variations to this Method Statement, including drawings must be notified to the Appointed Person before proceeding with the lift. The Lift Supervisor, together with client's representative, must note details of all variations, together with the comments of the Appointed Person on this sheet and signed/dated.

SIGNED: _____

DATE: _____

TOOLBOX TALK RECORD

TO BE COMPLETED ON SITE AND **MUST** BE RETURNED
 TO THE HIRE OFFICE ON COMPLETION OF CONTRACT

CLIENT:

SITE:

Prior to commencing the operation all site personnel are to sign below to confirm that a clear briefing explaining the job has been given and is understood.

APPOINTED PERSON		
Name: Gerry White	Signature: <i>GerryWhite</i>	Date: 09.01.24
LIFT SUPERVISOR		
Name:	Signature:	Date:
CRANE OPERATOR (1)		
Name:	Signature:	Date:
CRANE OPERATOR (2)		
Name:	Signature:	Date:
SLINGER/SIGNALLER (1)		
Name:	Signature:	Date:
SLINGER/SIGNALLER (2)		
Name:	Signature:	Date:
SLINGER/SIGNALLER (3)		
Name:	Signature:	Date:
THIRD PARTY (1)		
Name:	Signature:	Date:
THIRD PARTY (2)		
Name:	Signature:	Date:
ALL LIFT CERTIFICATION HAS BEEN CHECKED BY THE LIFT SUPERVISOR PRIOR TO ANY LIFTS TAKING PLACE		
Name:	Signature:	Date:

Workplace Inspection Report

(Lift Supervisor to complete before and during lifting operations)

Person carrying out Inspection	On behalf of
Main Contractor and Site address	Date Inspection
	Time of Inspection
	Weather at time of inspection

S = Satisfactory (No further actions required) or
N/S = Not satisfactory (Actions are required to rectify)
 Tick as appropriate at time of inspection

Items inspected	S	N/S	Items inspected	S	N/S
Site Induction / sign in procedures			Excavations		
Welfare facilities available in good condition			Plant/Traffic Segregation		
First Aid facilities			Site warning signs		
Site security and fencing					
General site condition (house keeping)					
Appropriate PPE being worn					
Working Height; access / egress, edge protection					
Site Electrics					
Plant and equipment					

Actions taken on completion of Inspection/report if any items above are noted as Not Suitable (N/S)

	Sign	Print	Date
Person carrying out inspection			
Copy of report presented to (if applicable)			

Pre-Lift Check Points					
Tick boxes to confirm checking where applicable					
	Yes	No		Yes	No
			Personal Protective Equipment		
Crane Examination Report			Site Induction/Emergency Action Plan in place		
Weekly Operator Inspection Form			Method Statement & Drawings Issued		
Manufacturers Instruction Manual			Risk Assessment Issued		
Examination Certificates for all Lifting Accessories			Slinger/Banksman Certificate		
Oils/Diesel Spill Pack Available			Operators CPCS/CTA/CITB approved & Certified for Current Crane		
Task Briefing Delivered & Recorded			Method of Communication Agreed		
Work Area Suitably Fenced & Signed			Traffic & Pedestrians Routed Safely from Lift Area		

Crane Erection/De-rig Checklist					
Tick boxes to confirm checking where applicable					
	Yes	No		Yes	No
Working Area Clear & Cordoned Off			Lift to be Performed as method Statement		
Location of Crane Set & Correct			Item Accepted by Client		
Load Limit & Load Indicator Correct			Rigging Released as Method Statement		
Items Fitted to Rigging as Detailed			Crane De-rigged		
Is the Weather Within the Acceptable Limits			Site Cleared and crane off site under the supervision of lifting supervisor		

Lifting Supervisor

Name Signature..... Date.....

SUB ACTIVITY	RISK/HAZARDS (i.e. Problem that may or will arise and need controlling)	INITIAL RISK			CONTROL (i.e. How are you going to stop a hazard from becoming an accident)	RESIDUAL RISK			Who Ensures?
		S	L	RR		S	L	RR	
Mobile Crane Operation	Over Turning/Ground conditions	5	4	20	Set up correctly, on good ground, base designed and verified by technical services. – 2.4x1m mats to be placed under each outrigger.	5	1	5	NMT
Lifting Operation	Capacity	5	3	15	Check crane against order. All loads lifted to be within safe working load of crane at specified radius' operator to confirm ASLI is in good working order. Any defects must be reported to crane supervisor.	5	1	5	NMT
	Overloading Crane	5	3	15	Lift as per method statement/lift plan. Operator to confirm ASLI is in good working order. Any defects must be reported to Crane Supervisor when tandem lifting cranes to be de-rated by Min 20%	5	1	5	NMT
	Control of Crane	4	3	12	CPCS – Operator. Signaller/Slinger to control all movements of the Crane.	4	2	8	NMT
	Lifting gear	5	3	15	Check certificate and condition. Operator/Client to ensure all lifting equipment to be used is certified and covered by a current 6 monthly inspection report and that a visual inspection before and after use is carried out.	5	1	5	NMT
	Weather/Wind & Fog	5	3	15	Obtain weather reports, monitor wind speed and fog density. Work to be stopped if conditions are deemed to be severe. Task lighting to be used if applicable.	5	1	5	NMT
Lifting of Loads	Attaching/Releasing Chains	4	3	12	Use only certified/correctly rated lifting equipment, trained CPCS Slinger. Check stability of load.	4	2	8	NMT
	Attaching Strops	4	3	12	Ensure secure position before releasing hands to work with strops.	4	2	8	NMT
	Releasing Strops	4	3	12	Ensure secure position before releasing hands to work with strops.	4	2	8	NMT
	Load Falling	5	3	15	Use certified strop. Certified slinger to attach, lift six inches off ground to check balance. Ensure strops cannot slip.	5	1	5	NMT
	Pinched Fingers	3	4	12	Wear gloves to keep fingers clear as loads are lifted. Correct PPE to be worn	3	2	6	NMT

SUB ACTIVITY	RISK/HAZARDS (i.e. Problem that may or will arise and need controlling)	INITIAL RISK			CONTROL (i.e. How are you going to stop a hazard from becoming an accident)	RESIDUAL RISK			Who Ensures?
		S	L	RR		S	L	RR	
	Load judder on lifting	4	3	12	Check strops cannot slip. Check chains are not twisted or snagged.	4	2	8	NMT
	Manual Handling of Small Loads	3	4	12	Use proper manual handling techniques. Place loads at waist height rather than ground.	3	2	6	NMT
	Sharp edges on loads	4	3	12	Lifting equipment to be protected from sharp edges. E.g. Rubber or timber packing-	4	1	4	NMT
	Materials Falling	4	2	8	When lifting over personnel this will be kept to a minimum – However when not possible at all times the slinger is to notify other site personnel a lift is taking place within close proximity and to be aware of overhead loads. All pallet loads must be lifted with lifting forks. Loads to be shrunk wrapped or netted. Lifting forks must be tested and certificated.	4	1	4	NMT
	Access/egress to and from site	3	3	9	Specific route to be agreed with client & the informing of other site personnel banksman to be provided in all area of restricted movement. All plant should be approached so that the driver/banksman/Slinger is aware of your presence.	3	2	6	NMT
	Access onto vehicles	3	3	9	All lorries to be offloaded/loaded from designated loading/off-loading areas. If possible loads to be delivered are to be pre slung preventing need to access lorry.	3	2	6	NMT
	Collision of persons/vehicles	4	2	8	Client to inform all contractors on site about the arrival of vehicles. All vehicles to be guided to position required by nominated Banksman.	4	1	4	NMT
	Noise	4	2	8	Noise assessment to be done by client.	4	1	4	NMT
	Loading & Off Loading Vehicles;	5	2	10	Only the minimum number of persons to be engaged during the operation.	5	1	5	NMT
	Contact and/or collision between vehicles/plant and people.				Vehicles must be in good efficient state and repair. Loading/un-loading to be controlled by an Appointed Person – Traffic management as required complete with full road closure implemented.				
	Protection of the Public; Public interface	3	2	6	The areas in which the lifting operation shall be completely barriered off to prevent the public gaining access. Warning signs shall be displayed at prominent places warning the public of danger from lifting operations. The lifting operations shall be halted immediately if any member of the public gains access inside the barriered area.	3	1	3	NMT

SUB ACTIVITY	RISK/HAZARDS (i.e. Problem that may or will arise and need controlling)	INITIAL RISK			CONTROL (i.e. How are you going to stop a hazard from becoming an accident)	RESIDUAL RISK			Who Ensures?
		S	L	RR		S	L	RR	
House Keeping; Slips, Trips, Falls	Personal Injury	4	2	8	All tools and equipment to be properly stored immediately after use. All unwanted packing materials to be correctly disposed of. Appropriate lighting to be available for all relevant works. Maximum use to be made of all waste disposable facilities. All work areas to be cleared on completion of work daily. All welfare facilities to be kept in a clean and tidy condition.	4	1	4	NMT
Hygiene	Disease and Contamination								
Offloading/Loading from public highway	Personal injury/collision	4	2	8	Road closure to prevent passing traffic – Pedestrian barriers around working area.	4	1	1	NMT/Site security

KEY

- L = Likelihood of Occurrence
 1. Improbable
 2. Remote: 1-10%
 3. Possible: 10-50%
 4. Probable: 50-90%
 5. Almost Certain: 90% +

sure to pl

- Unacceptable risk, plan out or add further controls
 Acceptable only if no other method viable and with high level controls in place
 Acceptable with suitable controls
 Acceptable, no further action required

4 | 2 | 8

4 | 2 | 8

5	5
4	4

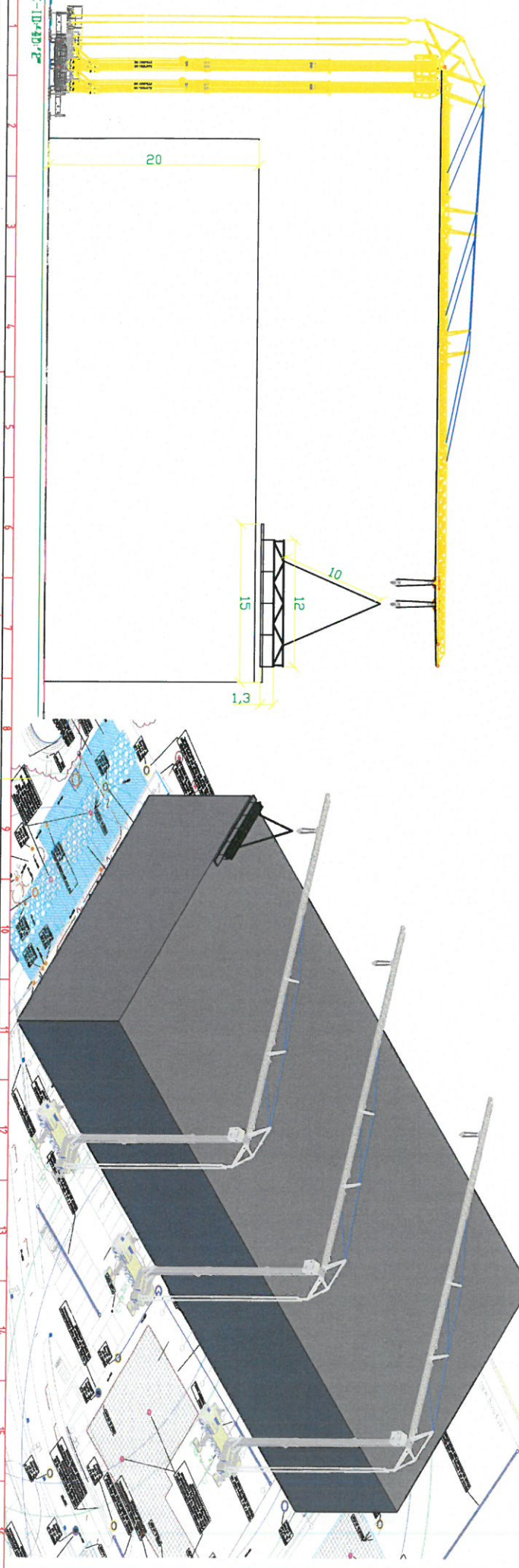
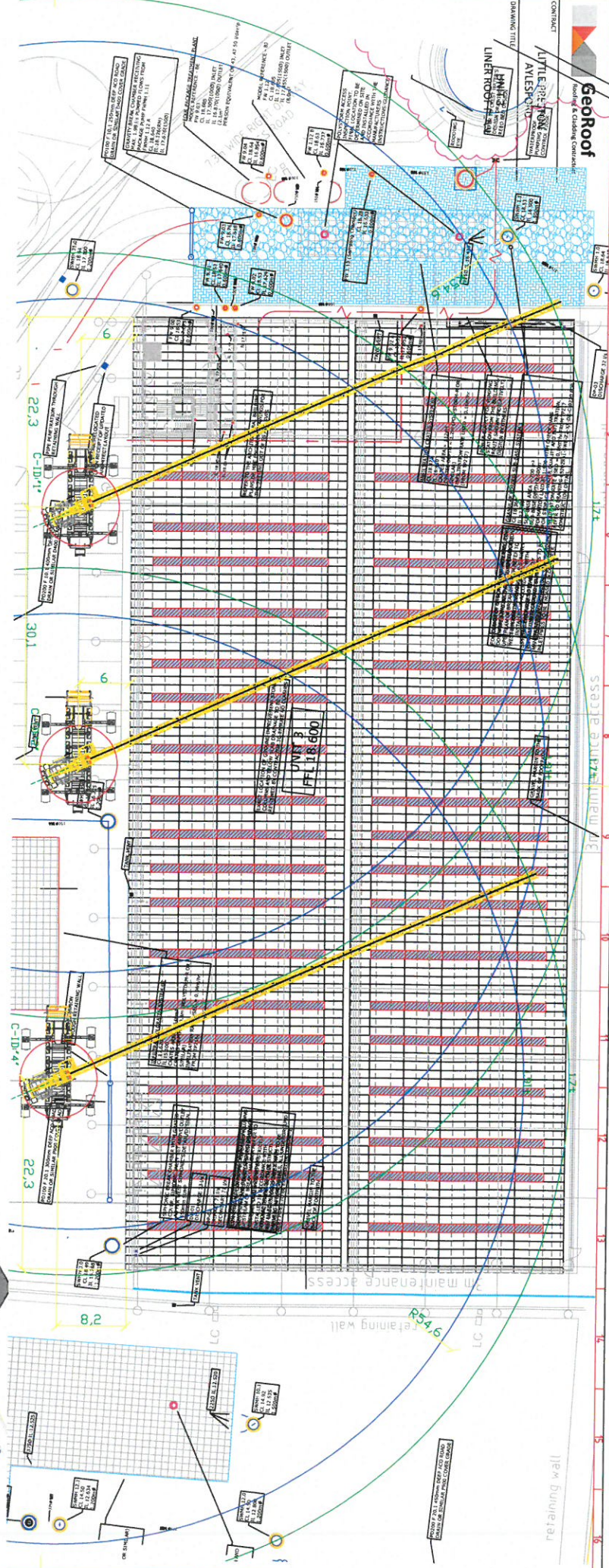
Information



Call: 0800 026 6995 Email: hiredesk@nmtrcranes.co.uk
Web: www.nmtrcranes.co.uk

MINIMUM LIFTING EQUIPMENT REQUIRED	
Soft Slings	
Webbing Slings	8NO 6MTR 2TE MIN
Spreader/Lifting Beams	12MTR ROOF SHEET BEAM
Wire Ropes	
Chains	2NO 4.25TE 6MTR 2LEG
Shackles	AS CARRIED ON CRANE
Mats	Standard mats
Brickforks	
Lifting poles	
Ratchet and strap	
Radios	2way
Harness & Fall Arrestor	1no
Tag lines	1NO
Hand written office use only	
NOTES	





Spierings Kranen B.V. Oss

03/01/2024

Results of calculations of outrigger forces

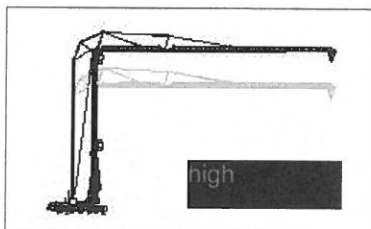
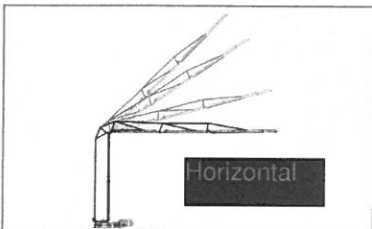
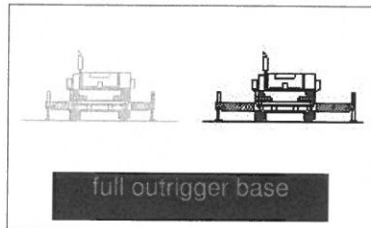
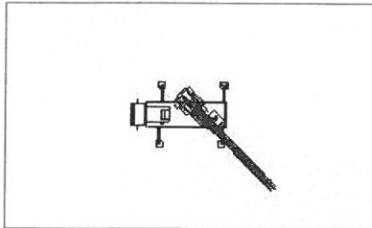
Type of crane: SK1265-AT6-60/60m

Wind force: 4 Bft

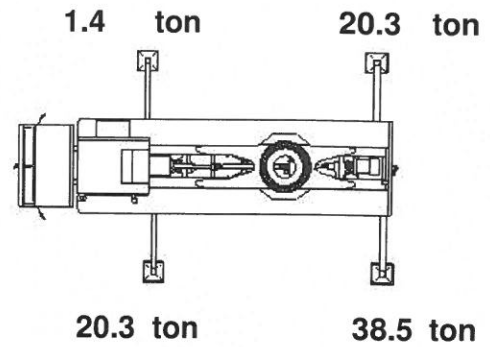
Hoisting mass: 1200 kg

Radius: 60 m

Situation of the crane:



Maximum outrigger forces during this situation:



Lifting Project

Job name:

Date of issue: 03/01/2024

Projected from: 03/01/2024 up to 03/01/2024

Project info

Job name:
Date of issue: 03/01/2024
Projected from: 03/01/2024 up to 03/01/2024

Crane Infos

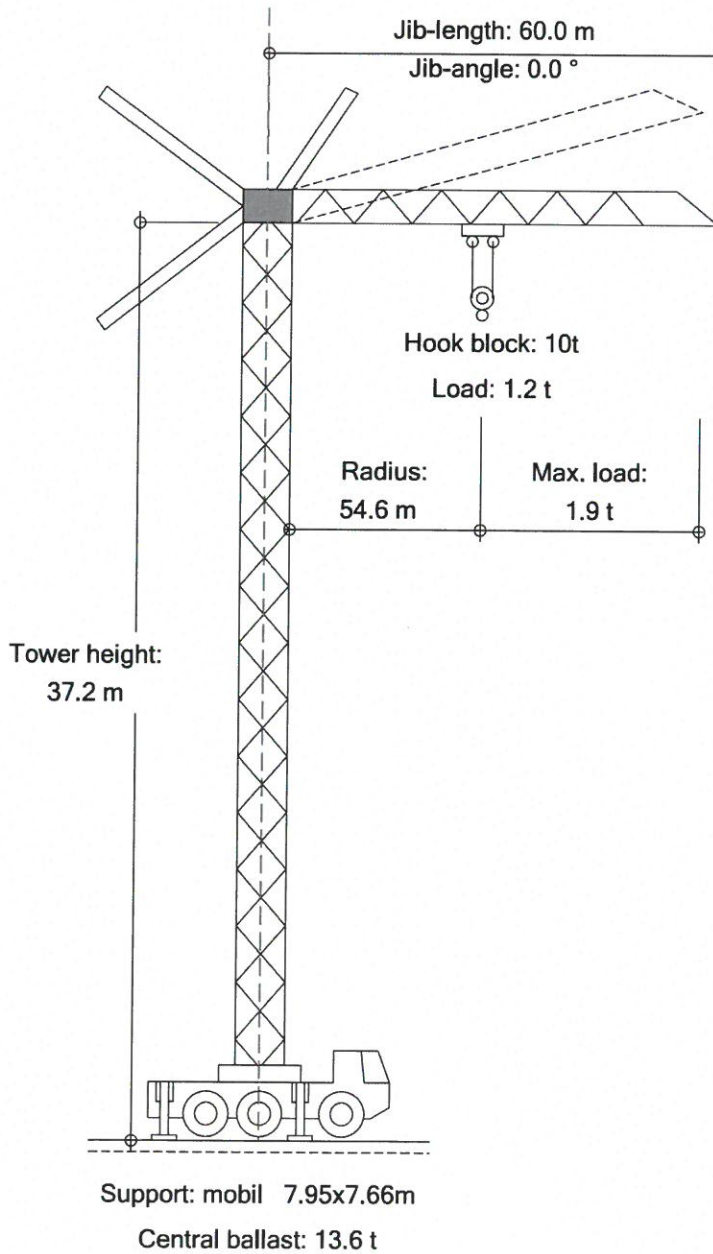
1 - SK1265-AT6 - - 37.2 m - 60 m

Project-ID:
Job name:
Created by:
Comment:

Date of issue: 03/01/2024

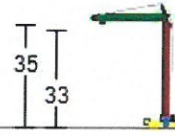
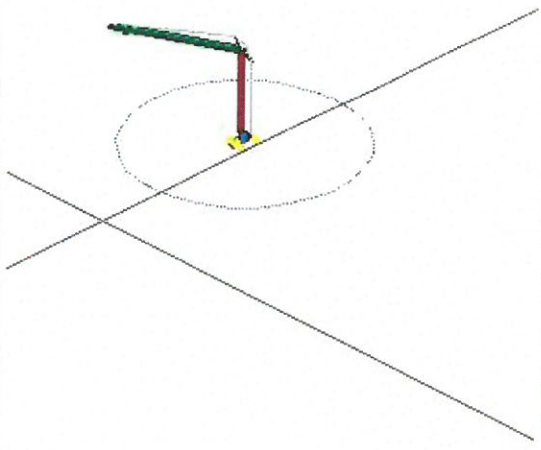
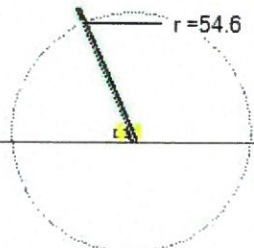
Crane Model:	SK1265-AT6
Serial number:	321100
Combination:	Standard
Tower height:	37.2 m
Jib-length:	60.0 m
Jib-angle:	0.0 °
Swing angle upperstructure:	113.7 °
Counterweight:	-
Counter-jib:	-
Central ballast:	13.6 t
Type of support:	mobil
Support:	7.95x7.66m
Hook block:	10t
Load: (Incl. accessories)	1.2 t (62.8%)
Radius:	54.6 m
Max. load at radius:	1.9 t (100%)

90° view to upperstructure / boom



Min - max table		
Radius	Load	TIP-height
3.5 m	10.0 t	35.0 m
13.2 m	10.0 t	35.0 m
14.0 m	9.34 t	35.0 m
15.0 m	8.61 t	35.0 m
16.0 m	7.99 t	35.0 m
...
29.0 m	4.03 t	35.0 m
30.0 m	3.87 t	35.0 m
31.0 m	3.73 t	35.0 m
32.0 m	3.59 t	35.0 m
33.0 m	3.47 t	35.0 m
34.0 m	3.35 t	35.0 m
35.0 m	3.24 t	35.0 m
36.0 m	3.13 t	35.0 m
37.0 m	3.04 t	35.0 m
38.0 m	2.94 t	35.0 m
39.0 m	2.86 t	35.0 m
40.0 m	2.77 t	35.0 m
41.0 m	2.69 t	35.0 m
42.0 m	2.62 t	35.0 m
43.0 m	2.55 t	35.0 m
44.0 m	2.48 t	35.0 m
45.0 m	2.41 t	35.0 m
46.0 m	2.35 t	35.0 m
47.0 m	2.29 t	35.0 m
48.0 m	2.23 t	35.0 m
49.0 m	2.18 t	35.0 m
50.0 m	2.13 t	35.0 m
51.0 m	2.08 t	35.0 m
52.0 m	2.03 t	35.0 m
53.0 m	1.98 t	35.0 m
54.0 m	1.94 t	35.0 m
55.0 m	1.89 t	35.0 m
56.0 m	1.85 t	35.0 m
57.0 m	1.81 t	35.0 m
58.0 m	1.78 t	35.0 m
59.0 m	1.74 t	35.0 m
60.0 m	1.7 t	35.0 m

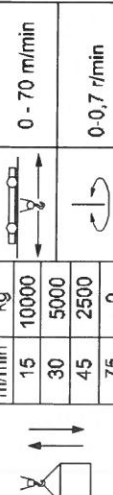
CAUTION: This planning tool software helps you to receive 'fast pre-results'. Please note that the calculated ground pressures are theoretical values, which can only be accurate under certain conditions. It is assumed that the crane is placed on firm and regular surface! Further, it is provided that the displayed Superlift / Derrickballast is within the min/max sector. As not all influences e.g. deflection, wind loadings, crane movements are taken into consideration to this planning software, the really ground pressures / outrigger loadings according to the amount of such influences could be different from the calculated results in the software. The ground pressures might be higher without load than the maximum pressures occurs with load. These results do not release the user from any duty of care, i.e. to check the crane values or the values on the building sites (and to recalculate them if necessary). Neither cranimax nor its employees take the responsibility of errors which might emerge!

<p>Project-ID: Job name: Created by: Comment:</p>	<p>Crane Model: SK1265-AT6 Serial number: 321100</p>
<p>Date of issue: 03/01/2024</p>  	
	

SPIERINGS CRANES

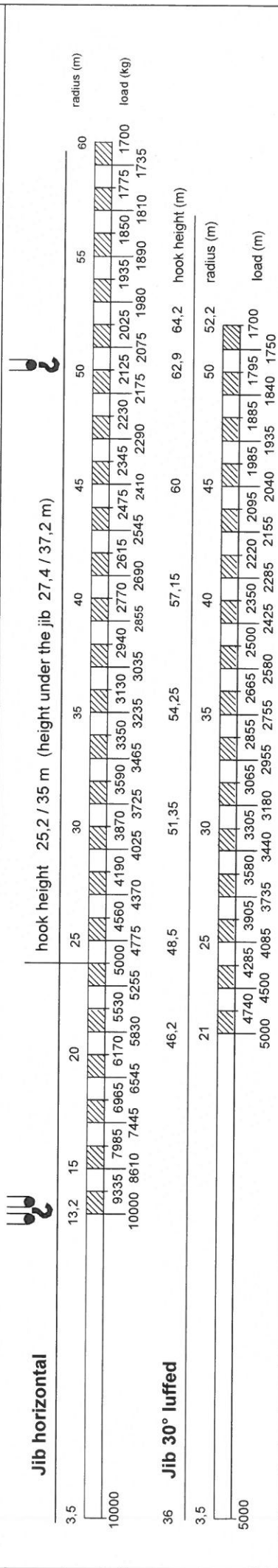
Make: SPIERINGS Type: SK1265-AT6

Crane specification (Jib lenght 60 m)

Serial number		Crane group : A3 as per FEM 1.001	Max. load	Max. radius with max. load	Max. capacity	Max. jib length
Year of construction		Loadspectrum : Q1 as per FEM 1.001	Crane equipped with full counterweight: 14300 kg	Rated lifting capacity is net capacity Max. line pull force : 2500 kg	132 tm	60 m
Speeds	Jib horizontal / jib 30° luffed	Classification : U4 as per FEM 1.001	360° continuous slewing : with outriggers out and down	2 parts of line : 5000 kg - 1700 kg 4 parts of line : 10000 kg - 5000 kg	13,2 m	Outrigger position : 7,95 x 7,66 m
		Stability : as per FEM 1.001	The crane should be folded in at a wind force > 8 on the Beaufort scale (wind speed 20 m/min)	Sail area of the load : max. 1,0 m ² / tonne Max. outrigger loading: 520 kN		Operation allowed up to a wind force of 6 on the Beaufort scale (wind speed 14 m/sec)
			Operating temperature : range from -15° to 40° C.			Outrigger position : 7,95 x 5,72 m
						Operation allowed up to a wind force of 6 on the beaufort scale (wind speed 14 m/sec)

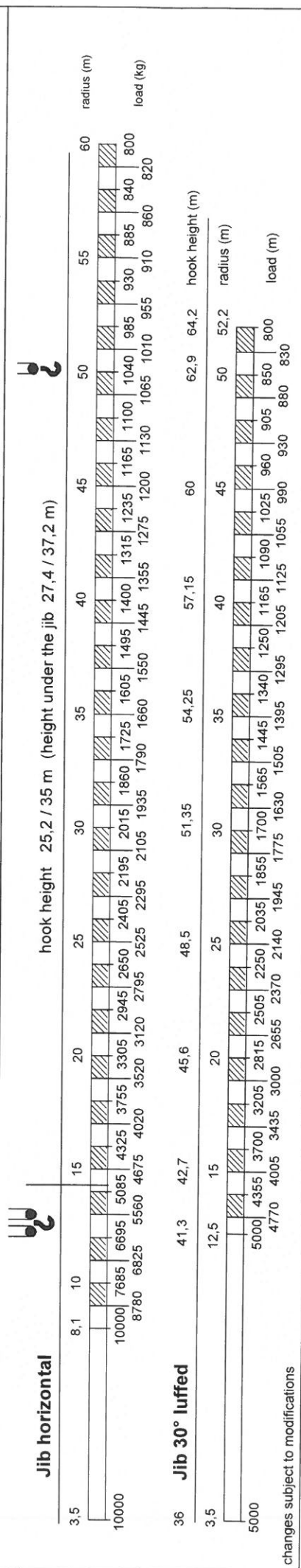
Outrigger spread : 7,95 m x 7,66 m (up to wind force 6 on the beaufort scale)

Lifting chart

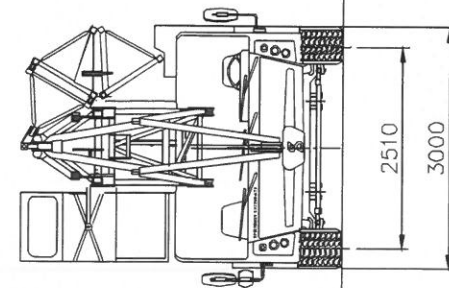
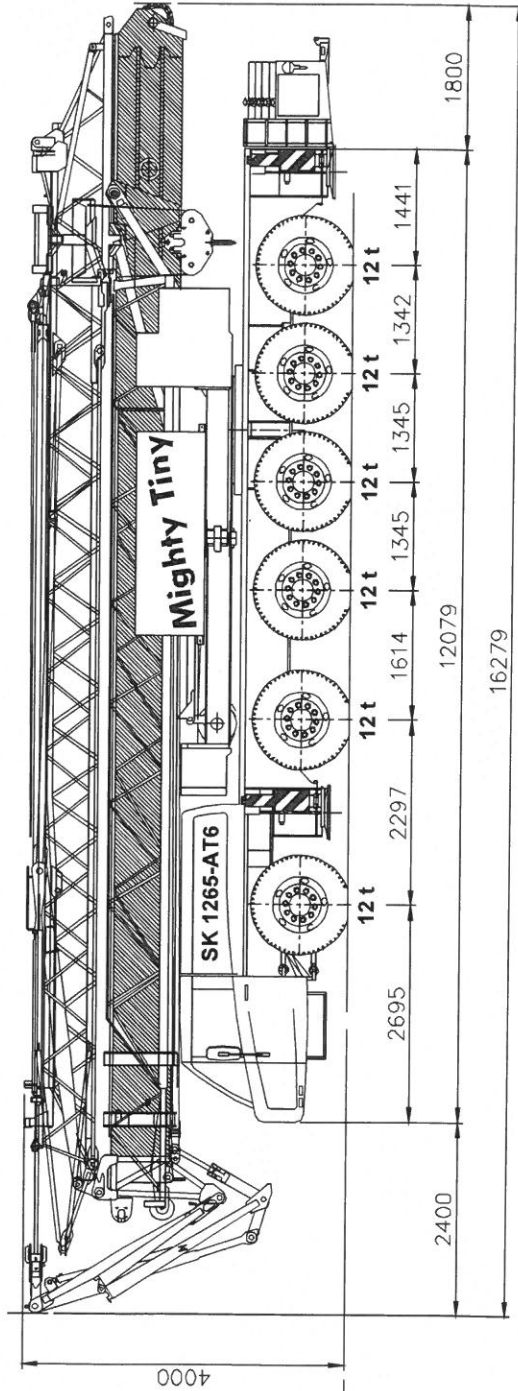
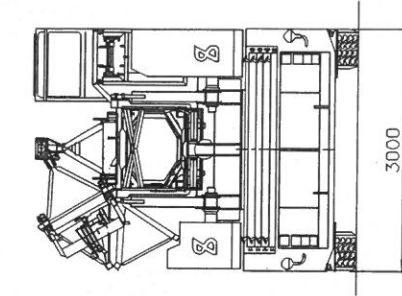
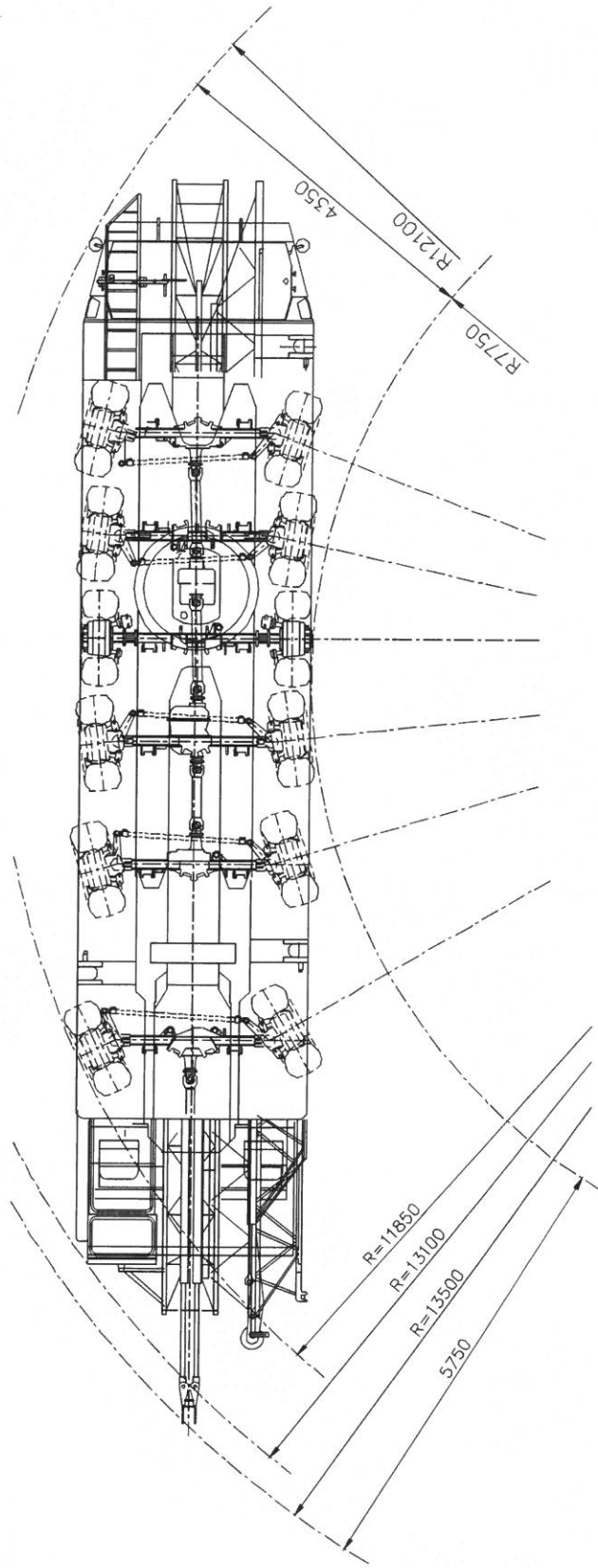


Outrigger spread : 7,95 m x 5,72 m (up to wind force 6 on the beaufort scale)

Lifting chart



changes subject to modifications



16279

SPIERINGS HYDRAULIC FOLDING CRANE SK 1265 - AT6



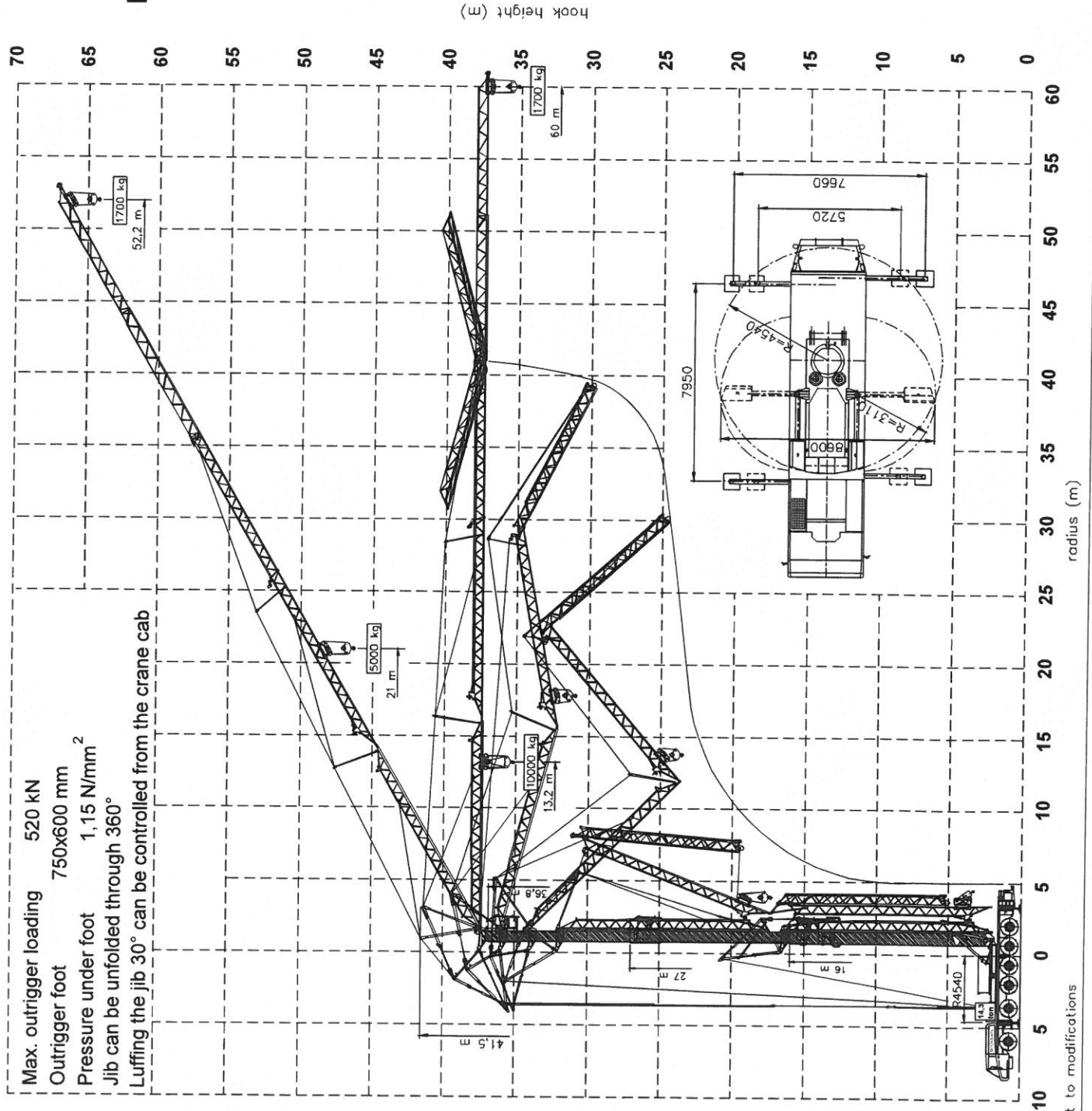
**SPIERINGS
KRANEN**
Merwedestraat 15
5347 KZ Oss NL
Tel. +31 (0)412-626964
Fax +31 (0)412-645299

Total weight: 72000 kg
Changes subject to modifications

SPIERINGS HYDRAULIC FOLDING CRANE SK1265-AT6

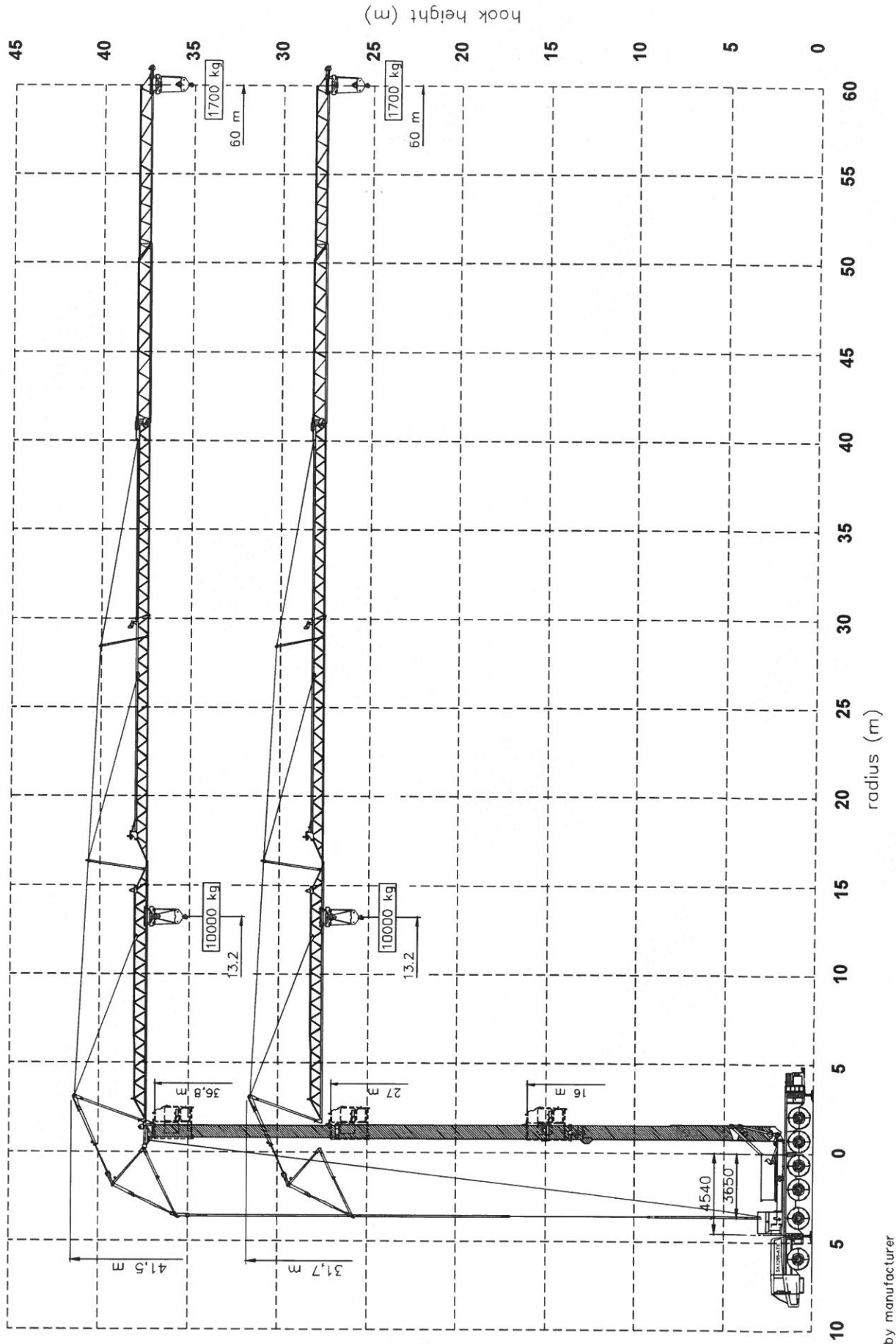


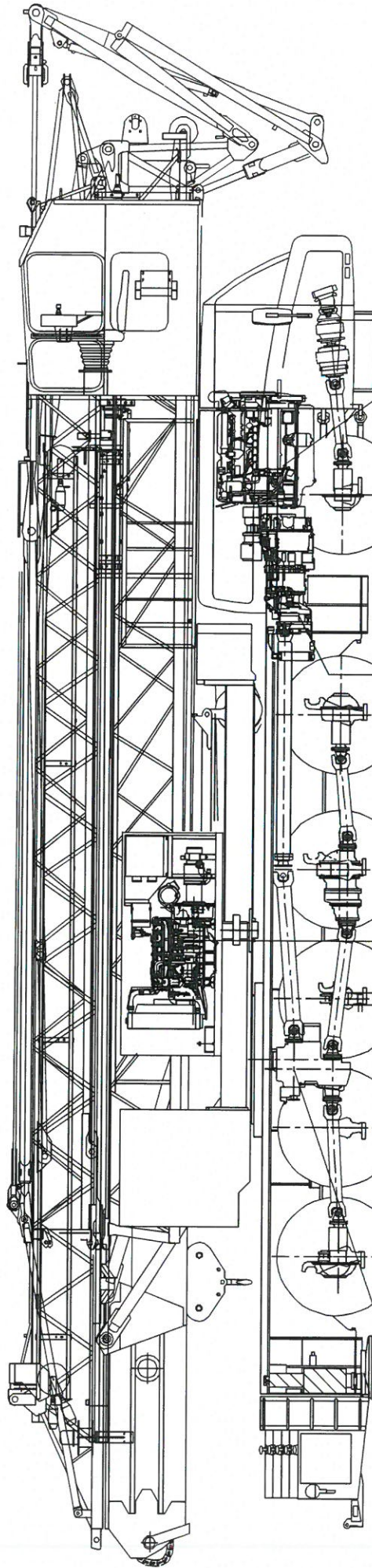
Merwedestraat 15
5347 KZ Oss NL
Tel. +31 (0)412-626964
Fax +31 (0)412-645299



Changes subject to modifications

SPIERINGS HYDRAULIC FOLDING CRANE SK1265-AT6





Transfer box:
 STEYR VG2001/396
 Road gear $i=0,89$
 Off road gear $i=1,54$

Crane diesel engine:
 DETROIT VM D706 IE2
 Power: 96 kW (2600 tpm)
 Torque: 480 Nm (1300 tpm)

Axle 6 Axle 5 Axle 4 Axle 3 Axle 2 Axle 1

Gearbox:
 ZF 16AS2601
 Automatic
 Dry plate clutch
 + interarder

Carrier diesel engine:
 DAF XE 390C
 Power: 390 kW (1900 tpm)
 Torque: 2300 Nm (1500 tpm)

Hydraulic powered front axle
 Bosch Rexroth hydro-motor A6VM
 BREVINI planetary reduction gearbox
 ED 2090 FE / 14,3
 Max. speed 12 km/u

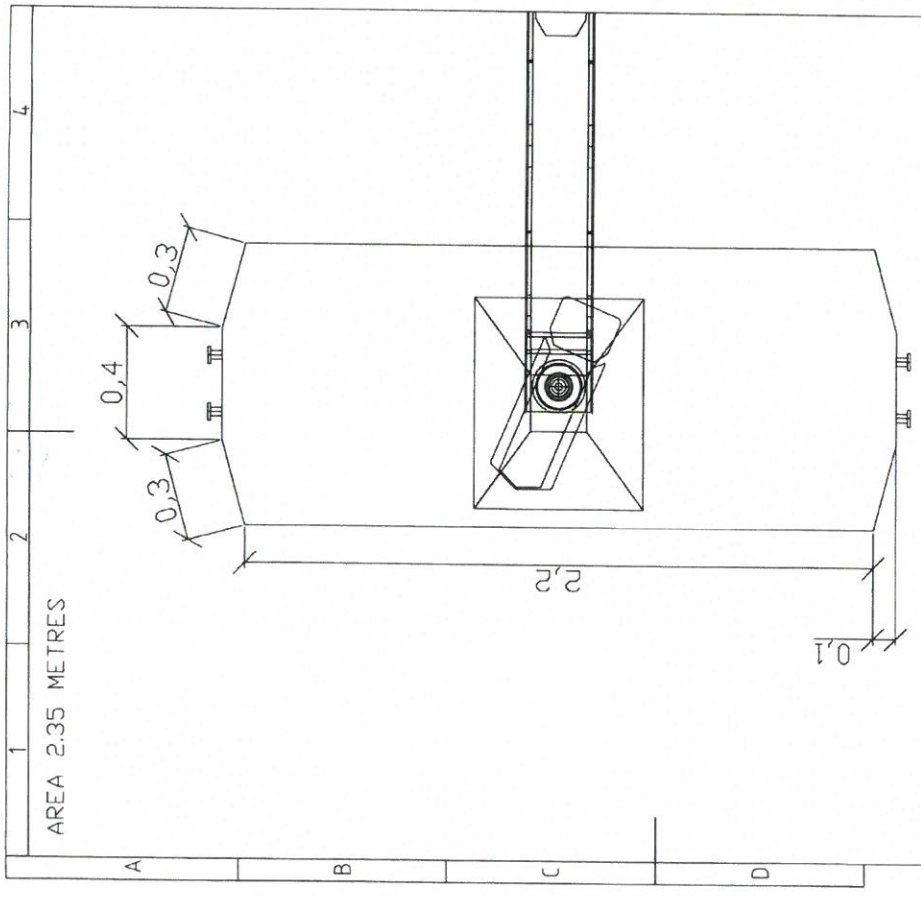
- Axle 1 : Steer axle, hydraulic driven (end reduction $i=6,38$) Tyres
- Axle 2 : Steer drive axle (end reduction $i=6,35$) Suspension: hydro-pneumatic on all axles; stroke cyl.
- Axle 3 : Steer drive axle (end reduction $i=6,35$) Max. speed carrier
- Axle 4 : Axle , non steered and non powered Min. speed carrier (engine at 1000 rpm)
- Axle 5 : Steer axle Overall weight
- Axle 6 : Steer drive axle (end reduction $i=6,35$)

- : 445/75 R22,5
- : 247 mm
- : 85 km/uur
- : 1,6 km/uur
- : 60.000 kg.

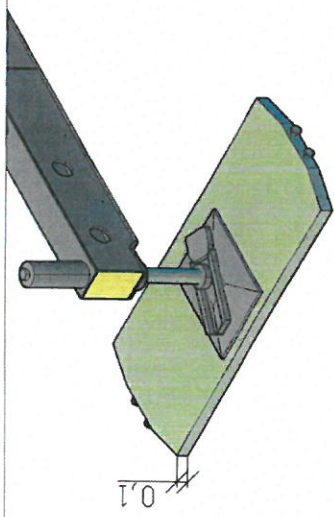
Drive train Spierings Folding Crane SK 1265-AT6

Changes subject to modifications

AREA 2.35 METRES



SPIERINGS 6 AXLE



NMT - Crane Hire

Pylon House Bedford Road
Bedford MK43 9LD
Phone: +44 (0) 1234 789 010 Fax: +44 (0) 1234 789 000
email: info@nmtcrane.co.uk URL: www.nmtcrane.co.uk

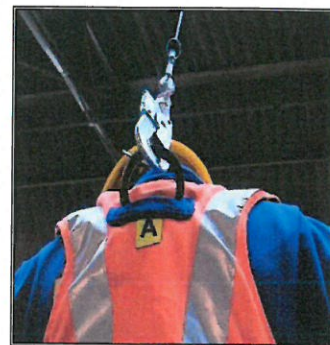
PROCEDURE FOR WORKING AT HEIGHT

The following procedure should be adhered to at all times before commencing the unloading of cabins from transport

- Rig the Mobile Crane onto its outriggers as per manufacturer's instructions.
- Raise the boom from its rest and lower the crane hook block to grade.
- Using suitable slings, (Note 1) Attach **One Inertia Reel** onto the hook block of the mobile crane. (This will allow One slinger to work at height when required) **Ref 1**
- Also, while the hook block is at ground, attach required lifting equipment.
- Tie a hand line of a suitable length to the safety hook of each inertia reel; this will enable the user to reach the inertia line when the hook block is raised. **Ref 2**
- Attach the safety hook of the inertia to the slingers / slingers harness. **Ref 3**
- The slinger will attach the chains / slings onto the item that is to be lifted.
- The slinger will then plumb up the jib head of the crane over the load and signal the crane operator to take up the slack in the chains / slings.
- The slinger / slingers will climb from the bed of the trailer or the cabin using a footed ladder.
- The slinger / slingers will then release the inertia reel safety hooks from their harnesses.
- Allow the inertia line to retract, using the hand line to control retraction.
- The crane operator will be given clear instructions to carry out the lifting operation.

Repeat this process until the vehicles has been loaded with all the cabins

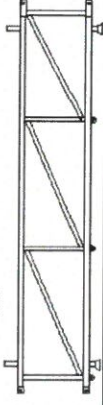
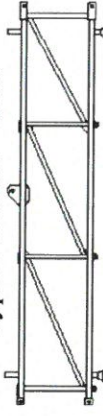


NOTE 1; The Inertia Reel can be attached to the crane hook by utilising a certified sling.



Roof Sheet Beam Breakdown

LG0146

Contract Number - _____

Type 1 Section – 3mtr	Type 2 Section – 3mtr	Type 3 Section	Cross Beam
			

6.5t Shackle Fitted to Type 2 Section				
---------------------------------------	--	--	--	--

Webbing Slings supplied			

Number of Connection Pins supplied Overall Length of Beam - _____

Beam Picked by - _____ Date - _____

User Instructions

MLS3T Lattice Spreader 6-42m

Modulift[®]
working between the hook and the load

The Modulift Lattice System (MLS3T) is a light-weight modular spreader suitable for long, light loads. Maximum spans from 6m up to 42m in 3m increments are achievable using this system. Lower support slings can be attached to the frames every 2m to ensure a uniformly distributed load.

Fig. 1 – Components

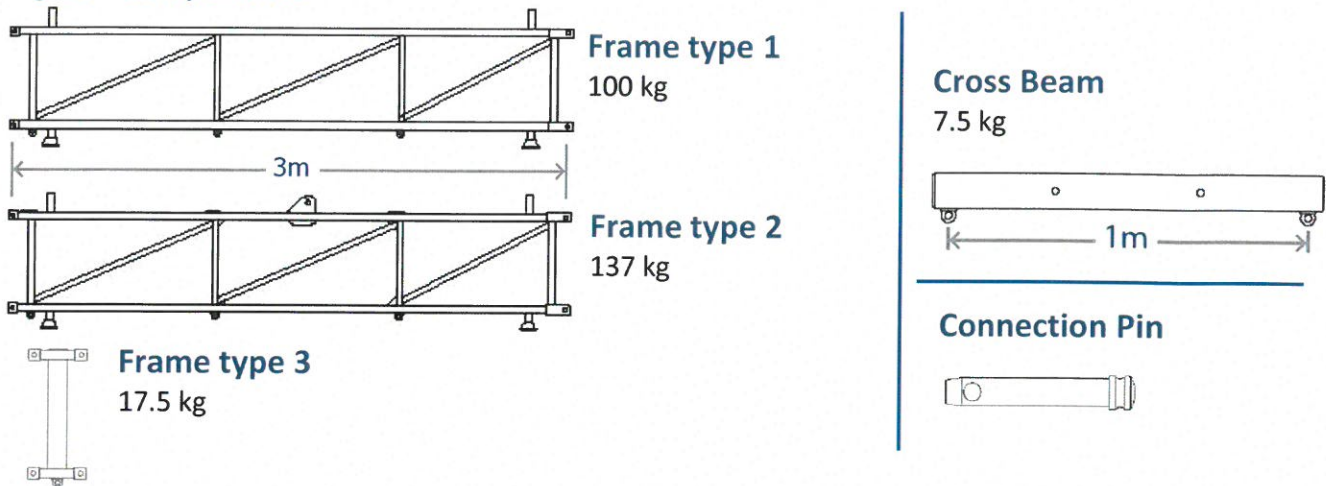
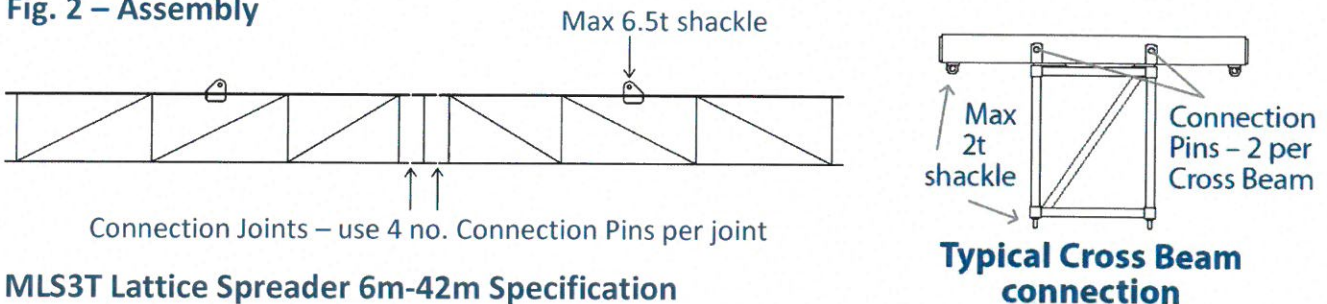


Fig. 2 – Assembly



MLS3T Lattice Spreader 6m-42m Specification

- Rated at 3 tonnes WLL – Uniformly Distributed Load Only (Up to 27m Span only).
- STV (sling to vertical) angle, β , 45° or less.
- Lifting points: Slings can be connected to weld eyes on ends of 1m span Cross Beams, or to weld eyes on underside of frames.

WARNING!

- Personnel using this system should be suitably trained, competent and have a clear understanding of Safe Slings procedures.
- The use of Modulift equipment must be in accordance with the procedures laid down in 'Lifting Operations and Lifting Equipment Regulations 1998' (LOLER).
- **The correct sling length is critical to the safe use of the spreader**
The STV (sling to vertical) angle, β , must not be more than 45°
- **Do not exceed stated WLL at the specific span**
- **The number of bottom lifting points must not be less than shown in the diagram overleaf**
- **Central support slings to be used for 21m+ configurations – see Fig 12**
- **Maximum 1.5m overhang of the uniform load at each end of the lattice spreader**
- **Connection Pins - contact Modulift for replacements**

Modulift UK Ltd tel: +44(0)1202 621511 email: sales@modulift.com www.modulift.com P1

User Instructions

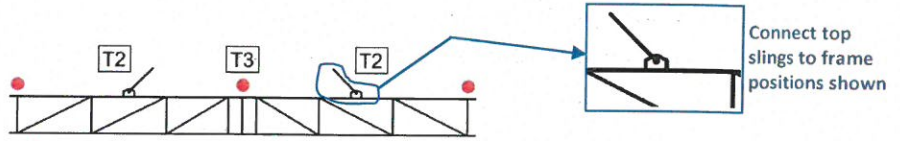
MLS3T Lattice Spreader 6-42m

Modulift[®]
working between the hook and the load

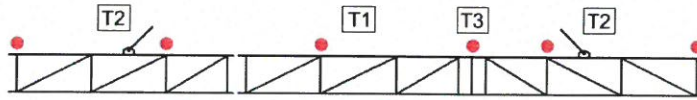
Fig. 3 – Configuration: 6m to 18m (3t capacity)

● = Connection point for Cross Beams or for attaching bottom slings to frame underside

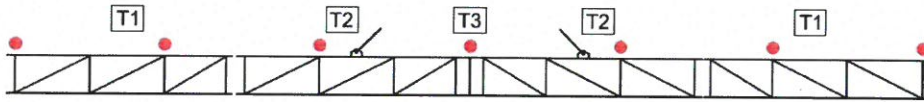
T1 = Type 1 Frame
T2 = Type 2 Frame
T3 = Type 3 Frame



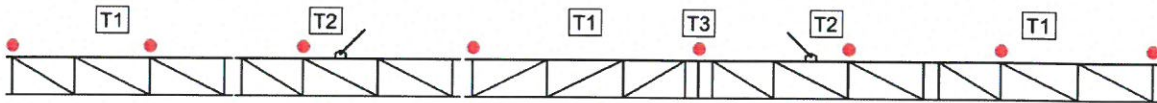
6m: Self Wt: 318 kg, Connection Pins: 8, Cross Beams: 3, Cross Beam Pins: 6, Min. Top Sling length: 2.2m



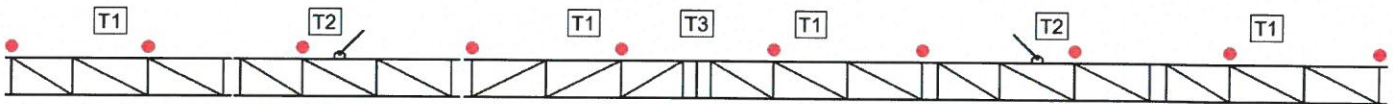
9m: Self Wt: 444 kg, Connection Pins: 12, Cross Beams: 6, Cross Beam Pins: 12, Min. Top Sling length: 4.3m



12m: Self Wt: 552 kg, Connection Pins: 16, Cross Beams: 7, Cross Beam Pins: 14, Min. Top Sling length: 2.2m



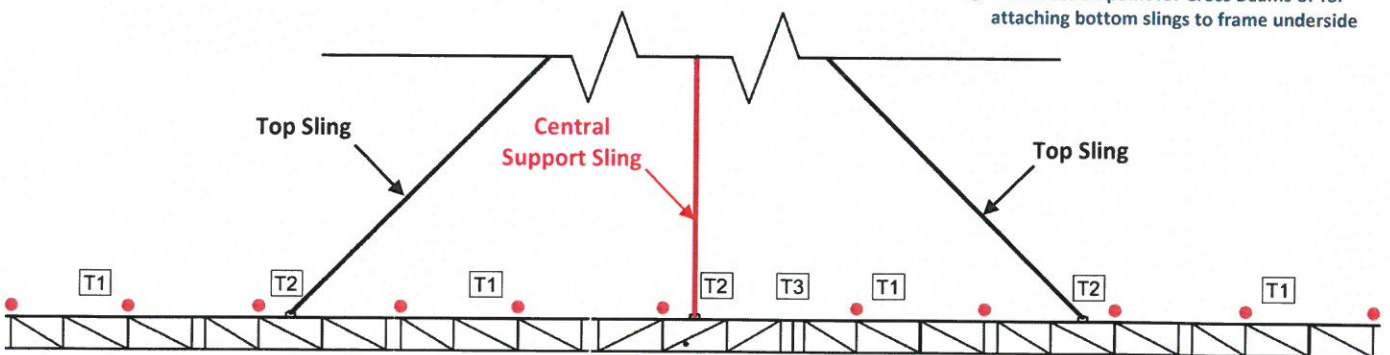
15m: Self Wt: 661 kg, Connection Pins: 20, Cross Beams: 8, Cross Beam Pins: 16, Min. Top Sling length: 4.3m



18m: Self Wt: 778 kg, Connection Pins: 24, Cross Beams: 10, Cross Beam Pins: 20, Min. Top Sling length: 6.5m

Fig. 4 – Configuration: 21m (3t capacity)

● = Connection point for Cross Beams or for attaching bottom slings to frame underside



21m: Self Wt: 887 kg, Connection Pins: 28, Cross Beams: 11, Cross Beam Pins: 22, Min. Top Sling length: 8.7m

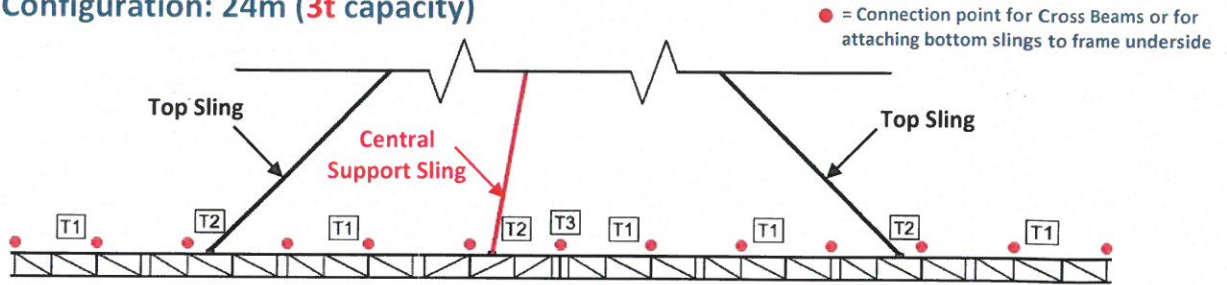
Central Support Sling: Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 8.7m top slings, approx. length of CSS is 6m – adjust to suit)

User Instructions

MLS3T Lattice Spreader 6-42m

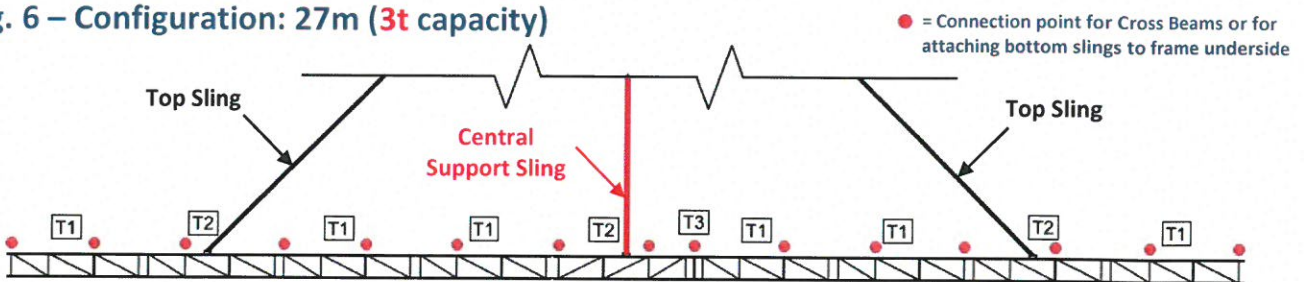
Modulift[®]
working between the hook and the load

Fig. 5 – Configuration: 24m (3t capacity)



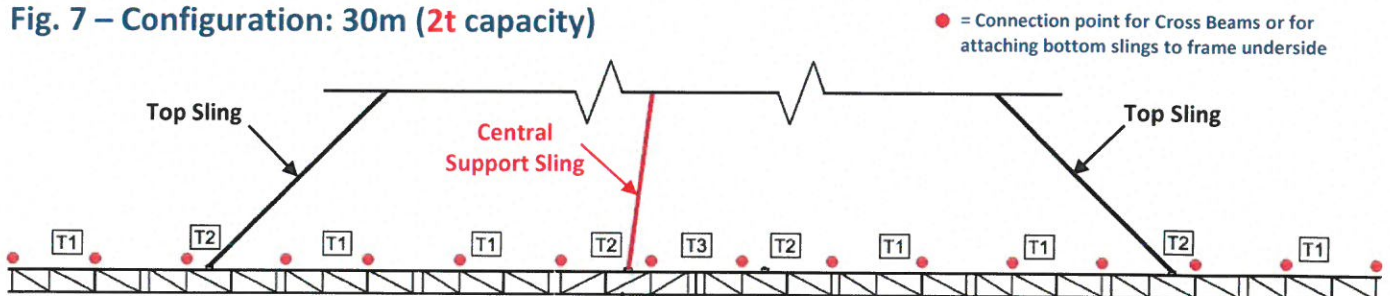
24m: Self Wt: 1005 kg, Connection Pins: 32, Cross Beams: 13, Cross Beam Pins: 26, Min. Top Sling length: 10.8m
Central Support Sling: Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 10.8m top slings, approx. length of CSS is 7.8m – adjust to suit)

Fig. 6 – Configuration: 27m (3t capacity)



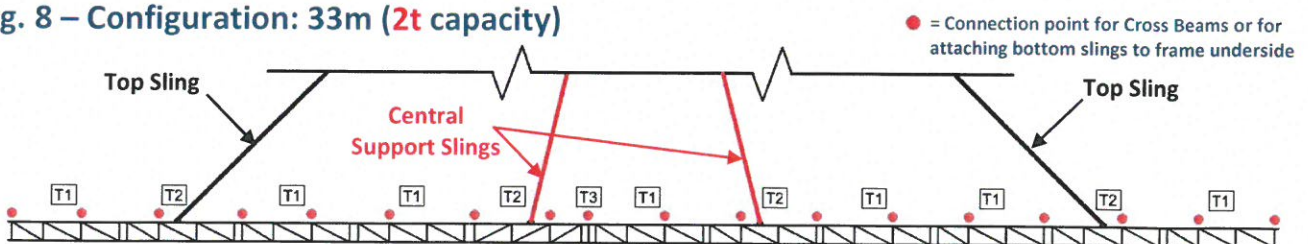
27m: Self Wt: 1121 kg, Connection Pins: 36, Cross Beams: 15, Cross Beam Pins: 30, Min. Top Sling length: 12.8m
Central Support Sling: Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 12.8m top slings, approx. length of CSS is 9m – adjust to suit)

Fig. 7 – Configuration: 30m (2t capacity)



30m: Self Wt: 1231 kg, Connection Pins: 40, Cross Beams: 16, Cross Beam Pins: 32, Min. Top Sling length: 15m
Central Support Sling: Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 15m top slings, approx. length of CSS is 10.6m – adjust to suit)

Fig. 8 – Configuration: 33m (2t capacity)



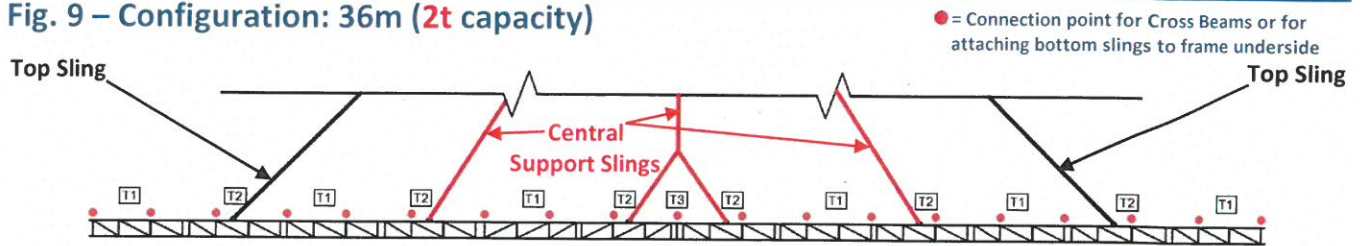
33m: Self Wt: 1347 kg, Connection Pins: 44, Cross Beams: 18, Cross Beam Pins: 36, Min. Top Sling length: 17m
Central Support Slings (2 no.): Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 17m top slings, approx. length of CSS is 12.5m – adjust to suit)

User Instructions

MLS3T Lattice Spreader 6-42m

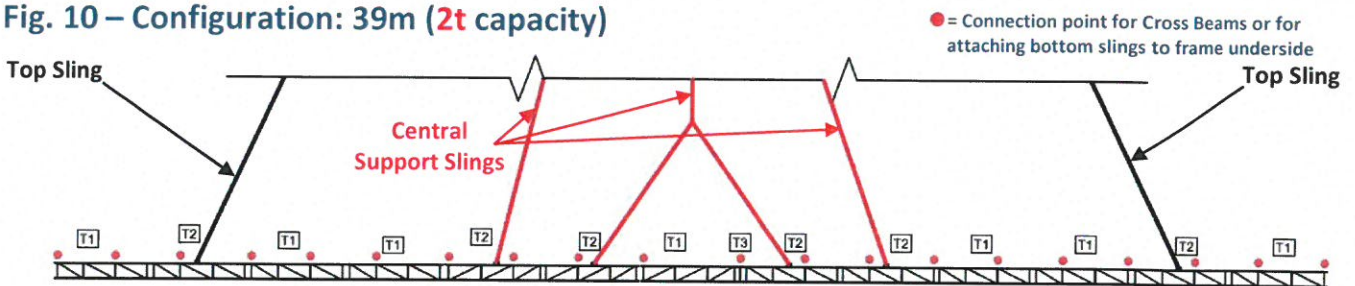
Modulift[®]
working between the hook and the load

Fig. 9 – Configuration: 36m (2t capacity)



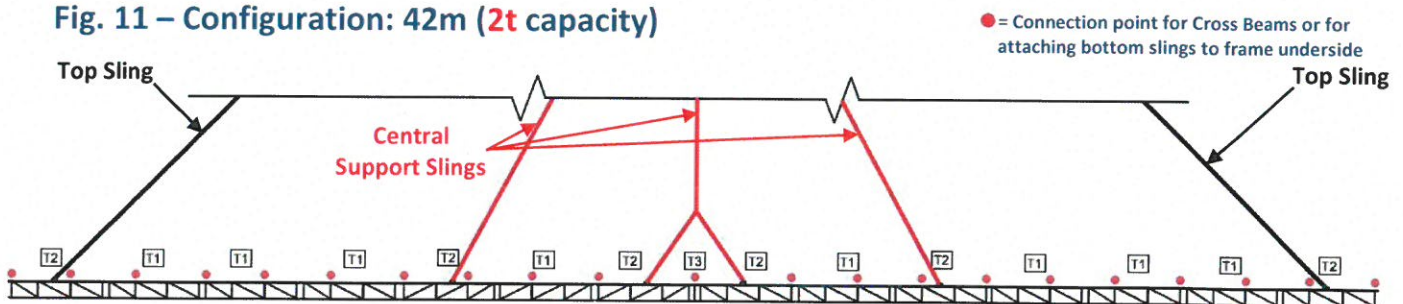
36m: Self Wt: 1604 kg, Connection Pins: 48, Cross Beams: 19, Cross Beam Pins: 38, Min. Top Sling length: 19m
Central Support Sling (3 no.): Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 19m top slings, approx. length of CSS outer is 15.5m and CSS inner is 14m – adjust to suit)

Fig. 10 – Configuration: 39m (2t capacity)



39m: Self Wt: 1712 kg, Connection Pins: 52, Cross Beams: 20, Cross Beam Pins: 40, Min. Top Sling length: 21.5m
Central Support Sling (3 no.): Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 21.5m top slings, approx. length of CSS outer is 16.1m and CSS inner is 15m – adjust to suit)

Fig. 11 – Configuration: 42m (2t capacity)



42m: Self Wt: 1800 kg, Connection Pins: 56, Cross Beams: 21, Cross Beam Pins: 42, Min. Top Sling length: 27.6m
Central Support Sling (3 no.): Length to be set on site – adjust until sag is taken out of lattice structure, see Fig 12 (if using 27.6m top slings, approx. length of CSS outer is 20.9m and CSS inner is 19.5m – adjust to suit)

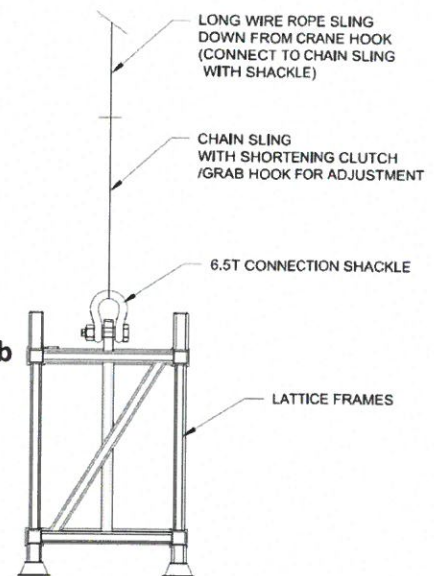
Fig. 12 – Central Sling Connection Details

Setup of the central support sling where required is essential to ensure safe use of the lattice.

The central support sling should be tensioned at all times, and the aim is to remove/reduce sag in the lattice frames. The length of the central support sling is dependent on the length of top slings being used.

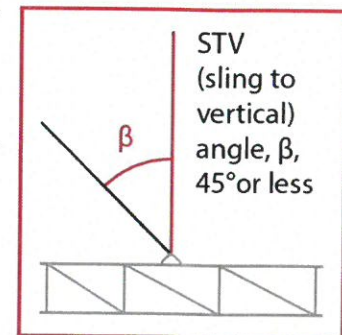
Typical assembly of the central support sling:

Long wire rope sling down from crane hook, connected to a 2m chain sling terminating in sling hook, c/w shortening clutches / grab hooks for length adjustment (+/- one link should give enough adjustment to set length). The sling hook can then attach to a 6.5t shackle on the T2 frame. Please contact Modulift if in doubt.



Safe use of spreaders

- All lifting operations must be planned in accordance with the procedures laid down in 'Lifting Operations and Lifting Equipment Regulations 1998' (LOLER).
- A risk analysis must be completed.
- A method statement should be produced and seen by the personnel using the equipment.
- Adhere to the correct beam configuration when planning lift.
- Only the manufacturer's component parts must be used in beam assembly.
- Ensure components are connected/tightened sufficiently.
- Ensure all personnel are clear from lift path prior to commencing lift.
- Take load up steadily, ensure beam is level – never shock load the lifting rig.
- Use tag lines on load with sufficient length to stand well clear.
- Never leave a suspended load unsupervised.
- If components are lost, contact your supplier for replacements.
- Store beams and equipment safely when not in use.



User Instructions

MLS3T Lattice Spreader 6-42m

Modulift[®]
working between the hook and the load

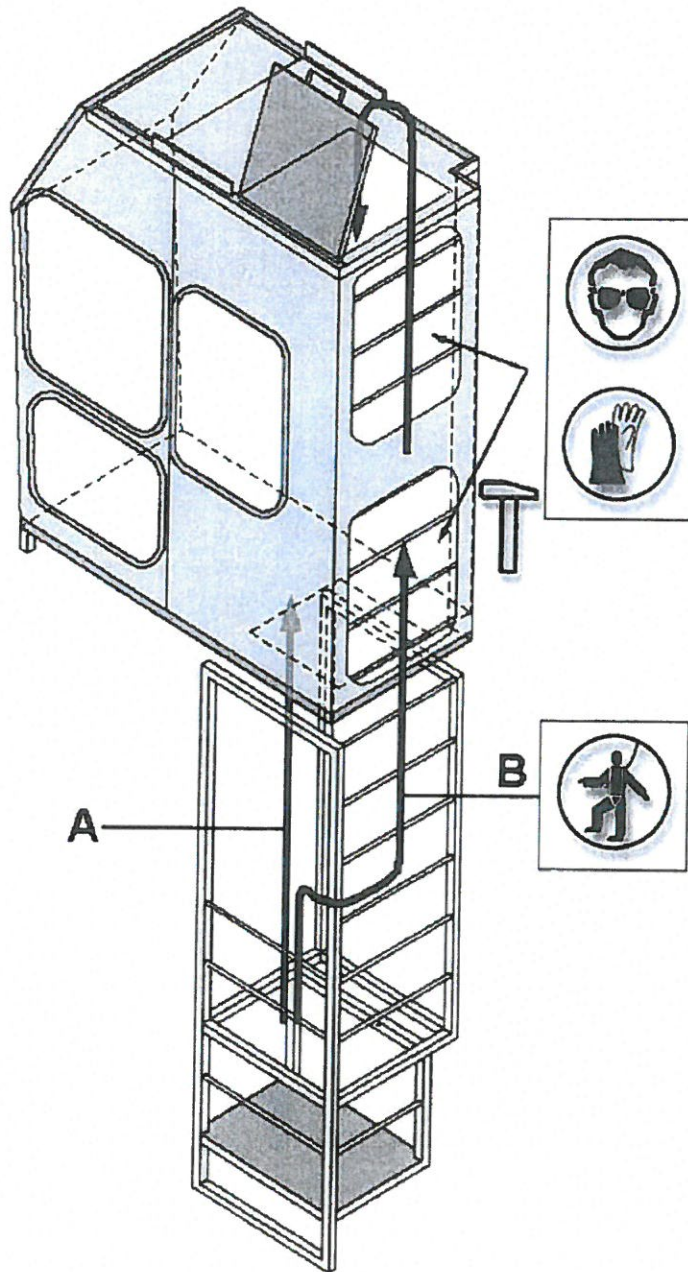
Assembly Procedure

- Visually check the condition of all the frame components and pins to be used. Do not use damaged items.
- Each Type 1 or Type 2 frame has 4 no. clevis connections at one end, and 4 connection blocks at the other. To connect the Type 1, Type 2 frames and the Type 3 frame together, the connection block of one frame has to slot into the clevis connection of the adjacent section.
- Position the Type 1, Type 2 & Type 3 sections in a line, in the configurations shown earlier in this User Instruction, for the particular desired span. Make sure the orientation of the frames allow for connection blocks to slot into clevis connections of adjacent frame.
- Starting with an end frame, slot the end frame and the adjacent frame together. Go along the whole lattice spreader, slotting all of the frames together.
- Insert a connection pin into every connection (4 pins required to interface between each frame). A hammer may be required to tap in if tight. Slot a linch pin into the hole of every connection pin and snap closed.
- If cross beams are required for a particular lift, slot a cross beam between the pairs of plates that are located on the top of the lattice spreader. Make sure there is a cross beam in the exact position as shown in this User Instruction for the specific span (shown as a red dot on the figures above).
- Each cross beam has two locating holes, insert the same type of connection pins used before, into these holes. Ensure the pin goes through both plates on the frame, and the cross beam fully. A hammer may be required to tap in if tight. Slot a linch pin into the hole of every connection pin and snap closed.
- Next attach all of the rigging: connect the top slings to the Type 2 top lugs using 6.5t shackles, in the positions shown in this User Instruction above at the particular span. If a central support sling is needed, set this up as detailed in this User Instruction. Next connect the bottom slings either to the weld eyes on the undersides of the cross beams if cross beams are being used, or to the weld eyes on the undersides of the frames. Again, make sure the positioning of the bottom slings matches the positions shown in this User Instruction.
- The top slings can then be attached to the crane hook, and the bottom slings attached to the load.
- Assembly to be checked by a competent person prior to lifting. When lifting, check there is no slack in the central support sling if one is needed, set back down and adjust the chain sling length if required.



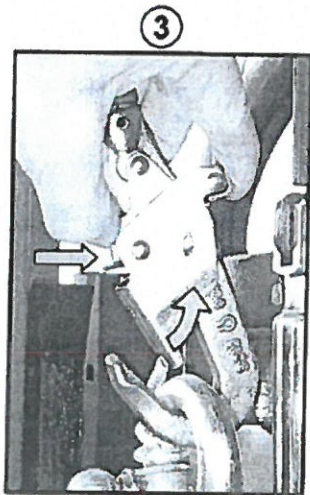
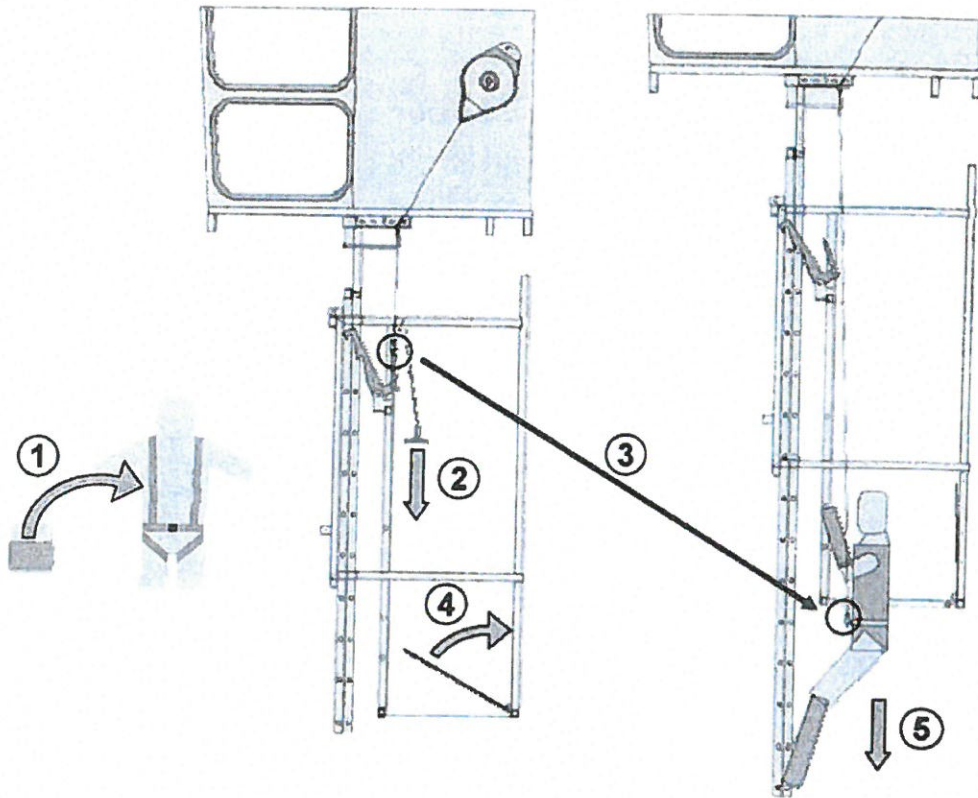


NOOD-TOEGANG CABINE
EMERGENCY-ENTRANCE CABIN
NOT-ZUGANG KABINE





NOOD-UITGANG LIFT
EMERGENCY-EXIT ELEVATOR
NOT-AUSGANG FAHRSTUHL





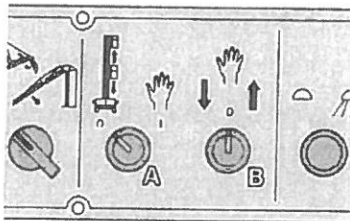
2.9.2. Emergency lift control



The emergency lift control is only to be used in the event of an emergency!

Under normal work conditions, the key for operating both key switches should only be present in key switch A *Picture 2-24*.

Under the control box on the superstructure are two key switches, by which the lift can be raised and lowered in the event of an emergency. The upper and lower limit switches are still working.



Picture 2-24

Proceed as follows:

- Use the key to switch the lift control to manual operation. Turn key switch A, *Picture 2-24* to the right.
- Subsequently, use the same key to lower or raise the lift. Turn key switch B, *Picture 2-24* to the right or to the left.
- As soon as the lift is in up or down position, use the key again to turn key switch A to the left for normal lift control.

2.9.3. Operating the lift during training



The emergency lift control, as described in Chapter 2.9.2 Emergency lift control, may be used by a specialist for training purposes!

For training purposes, a specialist (instructor) may use the emergency lift control to take the crane driver in training and himself up to the cab. Doing so, the instructor should observe following rules:

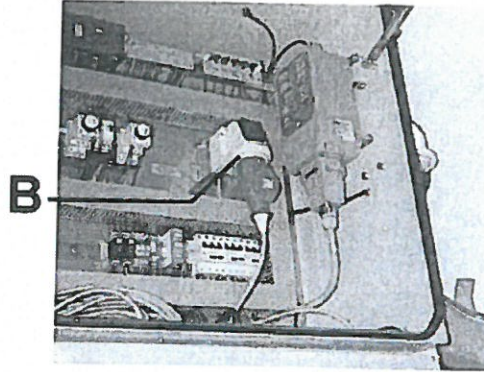
- The crane driver in training must go up first, using the lift according to normal work procedures.
- The crane driver then switches on the intercom. (*Picture 2-16, Switch 29*)
- By means of the intercom, the instructor must make sure that the crane driver in the crane cab is sitting in the seat and remains seated.
- At the same time, the instructor announces through the intercom, that the lift is no longer underneath the crane cab before he lowers the lift with the emergency lift control.
- When they leave the crane cab, the instructor is the first to take the lift to go down, whereas the crane driver must remain seated in the crane cab seat, until the instructor announces through the intercom, that the lift is up again.



2.9.4. Emergency lift control at loss of current

When there is a total loss of current for the crane, 400V construction power can be connected. All electrical functions can, in theory, be used again. The lift's electromotor can be operated as mentioned in chapter 2.9.2.

The connection point for construction power (B) is situated in the electrical cabinet (See *Picture 2-25*).



Picture 2-25

Operation order:

1. Connect the construction power (400V) as shown in *Picture 2-25, B* in the electrical cabinet.
2. Put on the ignition of the superstructure engine.
3. Switch on the manual control of the lift (see *Picture 2-15, A*).
4. Operate the lift using the key switch on the electrical cabinet (see *Picture 2-15, B*).



2.9.5. Lift safety devices

The lift winch is driven by a motor with reduction gear.

The lift is fitted with 2 wire ropes, a hoisting cable and safety line. On the lift cable is a 10-fold safety factor.

Furthermore, the lift is fitted with the following safety features:

Protection against slack lift cable when the lift gets stuck while going down

- A. Maximum load safety stop, to prevent overloading the lift.
- B. Double upper / lower limit stops, to make sure the lift stops at the end.
- C. Rope break protection by means of a braking mechanism.
- D. Protection against slack safety line, needed in case the safety line device is defective, as a result of which the safety line does not wind up.



Check the lift and lift suspension for damage after an emergency stop! Have the safety line device checked by the supplier

After the braking mechanism was activated: When the problem has been solved, move the lift a little bit up and release the braking mechanism.



Warning!

The safety device must be inspected when the braking mechanism has not been activated and the full weight of the lift has hung in the safety devices' cable.

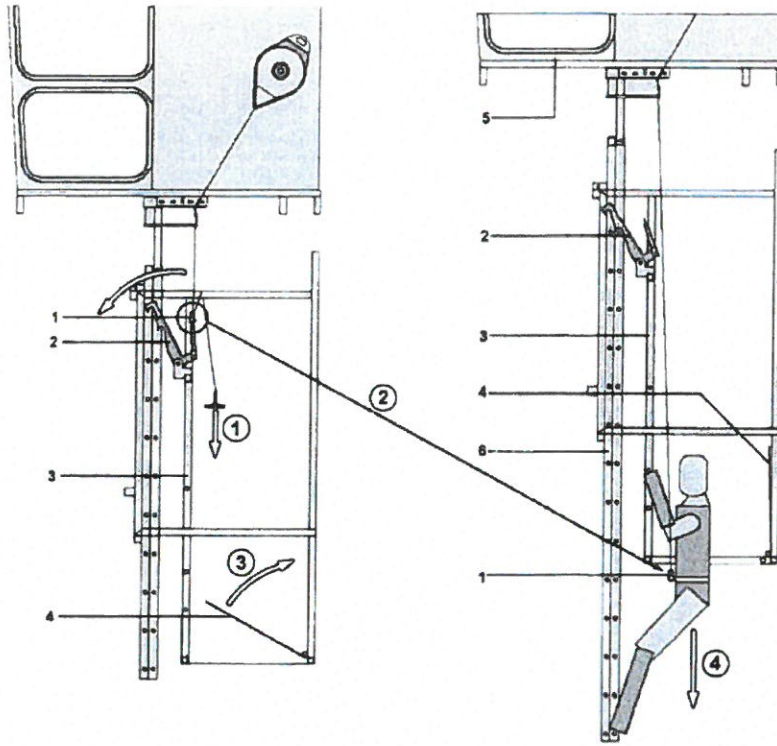
2.9.6. Lift emergency exit

In the lift is a harness which you have to put on when you have to leave the lift in case of power cut off. In case of an emergency stop proceed as follows: (see *Picture 2-27*).

- Put on the safety harness.
- Remove the roof hatch.
- Pull up the safety line hook spring by means of the chain and unhook the safety line (see *Picture 2-26*).
- Attach the safety line hook to the safety harness.
- Open the floor hatch by standing on a rung and pulling the hatch upwards.
- Now climb down the ladder.



Picture 2-26



- | | | |
|----------------------|-----------------|-----------|
| 1. Attachment hook | 3. Lift cage | 5. Cab |
| 2. Braking mechanism | 4. Escape hatch | 6. Ladder |

Picture 2-27