

PART OF **noch** Group



Schedule of Common Lifts

GUIDANCE DOCUMENT NOCN / Industry Lifting Lead AP Group Issue 2 (2023)



The Lifting Lead AP Group

The Industry Lifting Lead AP Group was formed in 2015 to bring together like minded people within industry to encourage improved collaboration and co-ordination, while aiding communication between working groups, associations, governing bodies, contractors, owners and suppliers. The aim is to support industry on improvements and assistance to areas such as standards, guidance, training and improved methods of working to make lifting operations safer and more efficient.



The NOCN Group

NOCN Group is an educational charity whose core aims are to help learners reach their potential and organisations thrive. The group includes business units specialising in regulated UK and international qualifications, End Point Assessment, assured short courses, SMART job cards, assessment services, consultancy, and research.

We are the only awarding body in the UK which specialises in <u>productivity</u> and focus on increasing the UK's competitiveness globally. As the second-largest awarding organisation in the UK construction sector, we are committed to working for a better future for <u>UK construction</u>.

NOCN are proud to host this document on behalf of the Lifting Lead AP Group and to make it available to the construction sector. Our thanks go out to all of the contributors, especially Tom Pawson without whom, this would not have been possible.

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Introduction

This document has been produced to provide guidance on slinging methods for a number of loads commonly lifted on construction sites. It is not, and nor is it intended to be, a substitute for appropriate lift planning by a competent person.

Considerations to be made by the user prior to using this guidance

The user's attention is brought to the following points, and the requirement for further assessment by the user if necessary:

- All lifting operations must be planned and managed by a competent person. The document is only to be used by people who are appropriately trained and competent.
- This document is intended to be guidance and, where used, the competent person assumes full responsibility for its accuracy and suitability.
- The competent person must conduct a suitable and sufficient risk assessment to ensure that environmental and load hazards are identified and managed appropriately.
- No sector specific working restrictions have been considered, e.g. exceptional hazard sites (nuclear, petrochemical etc), working adjacent to railways etc.
- The weight and geometry of loads has not been assessed in relation to any maximum safe wind speeds for the lifting operation (i.e. any sail effects on the loads).
- No assessment has been made of any temporary works requirements in relation to the load.
- No assessment has been made of lifting operation complexity.
- All loads have been considered to be inherently stable and with centres of gravity below the attachment points as shown in the images.
- No assessment has been made of any additional requirements to control or stabilise the load during the lifting operation, for example by tag line.
- Where reasonably practicable, designated integral / engineered lifting points should be included on loads and, where they do exist, they should be used for lifting from in preference to non-captive attachment methods.

Lifting accessories

Slinging arrangements within this guidance are minimum recommendations; greater capacity accessories can be used provided the lifting accessories are compatible with other lifting accessories and the load.

All chain slings recommended within this guidance are from EN 818 Part 4 Table 3 ("Short link chain for lifting purposes – Safety – Chain slings – Grade 8"), replicated on the following page. The capacities are based on avoiding utilisation greater than 85%. Where alternative grades of chains are being used, an assessment by a competent person must be made to determine the appropriate minimum chain capacity.

All lifting accessories being used must be suitable for the environment of use (for example temperature, chemicals etc) and have any capacity reduction applied as per manufacturer's recommendations.

Where a multi leg sling is being used, but not all legs are in use, the capacity shall be reduced according to the number of legs being used divided by the total number of legs.

Lifting accessory manufacturer's safe use instructions, for example in relation to any minimum corner radius for chain links, must be followed.

Where lifting accessories, for example textile slings, could be damaged by the load, secondary protection should be provided.

Nominal size Working load limits, t, for of chain sling å0 mm Single-leg Three - and - four - leg slings Two leg chain chain chain slings slings 0° < β ≤ 45° $45^\circ < \beta \le 60^\circ$ $0^{\circ} < \beta \le 45^{\circ}$ $45^\circ < \beta \le 60^\circ$ Factor 1,4 Factor 1,0 Factor 2,1 Factor 1,5 4 0,5 0,71 0,5 1,06 0,75 5 0,8 1,12 0,8 1,6 1,18 6 2,36 1,12 1,6 1,12 1,7 1,5 2 7 1,5 2 2,12 3,15 2,24 8 2,8 4,25 3 10 3,15 4,25 3,15 6,7 4,75 13 5,3 7,5 5,3 11.2 8 16 8 11,2 8 17 11,8 18 10 14 10 21,2 15 19 11,2 16 11,2 23,6 17 20 12,5 17 12,5 26,5 19 22 15 21,2 15 31,5 22,4 23 16 23,6 16 35,5 25 25 20 28 20 40 30 26 21,2 30 21,2 45 31,5 28 25 33,5 25 50 37,5 32 31,5 45 31,5 67 47,5 36 40 56 40 85 60 40 50 71 50 106 75 45 63 90 63 132 95

EN 818-4:1996 + A1:2008 "Chain slings - Grade 8" Table 3

General safe lifting guidance



PERMIT

TO LOAD

Discuss the lifting operation as a team beforehand and in the pre-start briefing.

All lifting equipment and

an in-date LOLER report of

Only use lifting accessories that are in the **lift plan** and

attach where specified.

Always get **approval** from the TWC for loading

onto the around or any

Keep the **area tidy and free** from slip, trip and

other structures.

fall hazards.

thorough examination.

accessories must be maintained, inspected before use and have



Check the weather before and monitor it during the lift.

Inspect the load and

damaged/distorted.

attachment point before

Always carry out a trial lift

to ensure load is secured

lifting to ensure it is not



Ensure the load's centre of gravity is vertically below the hook and the hoist rope is vertical.



Check the load travel path and landing location for people and obstructions before lifting.



Stand away from loads being lifted in case they move unexpectedly. Never try to steady an unstable load.



Only lift loads within the rated capacity of the equipment.





Only operate remote controls when in a place of safety and isolate the controls at all other times e.g. when climbing a ladder.



Always set up the lifting equipment according to the lift plan.













Never put your fingers or any other body parts in any crush locations.



Don't put yourself in any potential crush zones.



Never walk or stand under

suspended loads.

• if you can't see or hear instructions from the slinger/signaller. • if you have any safety concerns about the lifting operation and speak to the AP/Lift Supervisor.



Where it is necessary to use a tag line or push stick to control and guide the load, ALWAYS do this from a safe distance.

and balanced. Protect accessories from damage. **Quarantine** them if needed.



Always agree and test the communication method to be used

Steel square mesh reinforcement



Reinforcement bars (bundled)

			R				
Load size	Various lengths up to 12r	n.			Max wei	< load ght	2.0t
Load weight	Weight per m (kg) 12m length (kg) Max number in 2t bundle of 12m length If the bundle size is bigge	12 0.9 10.8 185	16 1.6 19.2 104	Bar diamo 20 2.5 30.0 66	eter (mm) 25 3.9 46.8 42	32 6.3 75.6 26	40 9.9 118.8 16
Slinging method	Double wrap and choke 1 2 leg chain slings, or 2 no. webbing or endless WLL)	/3 in from e	each end wi	th: leg chain sli	ngs on to	p if required,	4.25t min
	Lifting accessories		WL	L x mode fa	actors	Resul	ting SWL
1 no. 2.8t min WLL 2 2 no. 2.0t min WLL w	leg chain slings, or ebbing or endless textile sl	lings	2.8t – 2.0t x	20% choke 1.4 – 20% c	hoke	2.24t 2.24t	
 Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°) and hooks are facing out from the load, i.e. safety catches on the outside. Bundles may have weights on delivery tickets – check before lifting. Do not lift from bundle ties. Single trip slings are not to be attached to other loads. After delivery of load, any subsequent lifting of original load to be under specific RA and AP approval, and must not be to extremes of height, depth, or in higher risk environments. Where possible, always lift bars of the same or similar length to avoid bars coming loose from the bundle 							

Scaffold tubes (bundled)

Load size	Various lengths up to 21' (6.4m).		Max weig	ht 1.8t			
Load weight	1.5m / 5'1 no. tube (kg)6.7Bundle of 61no. (kg)408If the bundle size is bigger than above	Fube length (m / foot) 3.0m / 10' 4.9m / 16' 6.4 13.4 21.5 1,312 817 1,312 4 e, consult the AP. 4 4	4m / 21' 28.2 1,720				
Slinging method	Slinging method Double wrap and choke 1/3 in from each end with: 2 no. webbing or endless textile slings (attach 2 leg chain slings on top if required, 2.8t min WLL).						
2 no. 2 0t min WIL w	Lifting accessories	WLL x mode fact	ors	Resulting SWL			
Safety considerations	 Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°). Bundles may have weights on delivery tickets – check before lifting. Single trip slings are not to be attached to other loads. After delivery of load, any subsequent lifting of original load to be under specific RA and AP approval, and must not be to extremes of height, depth, or in higher risk environments. Where possible, lift tubes of the same or similar length to avoid tubes coming loose from the bundle. If tubes are different lengths, ensure all tubes are included in both chokes. Ensure slings provide sufficient friction to prevent sling movement against the load. 						

Scaffold boards

Load size	Various lengths up to 13' (3.9m).			Max wei	x load ght	2.0t
Load weight	1 no. board (kg) Bundle of 50 weight (kg) Bundle of 100 weight (kg) The above are for standard 225mm	Boar 2.4m / 8' 12.3 615 1,230 n timber l	d length (m / 3.0m / 10' 15.4 770 1,540 boards. For c	/ foot) 3.9m / 13' 20.0 1,000 2,000 different boar	ds, consult th	ne AP.
Slinging method	Double wrap (can be single wrap it 2 no. webbing or endless textile sli	f still ban ings (atta	ded) and cho Ich 2 leg chair	oke 1/3 in fror n slings on to	m each end w p if required,	/ith: 2.8t min WLL).
	Lifting accessories		WLL x mod	de factors	Resul	ting SWL
i 2 no. 2.0t min WLL w	edding or endless textile slings	2	2.UT X 1.4 – 20	J‰ CNOKE	2.24t	
Safety considerations	 Ensure leg length is sufficient Where possible, always lift b lengths, ensure all boards are If boards are different lengths 	to keep i oards of included , ensure	ncluded angl the same of in both chok both slings a	e <90° (exclud r similar leng kes. re choked ins	ded angle <4! th. If board ide each end	5°). s are different of all boards.

Sheet timber bales

Load size	Up to 2.44m x 1.22m, various t	hicknesses			Max load weight	2.	4t
		նար	9 5mm	Board thick	ness (mm) 18 5mm	28 5mm
	1 no. board (kg)	12	16	23	27	34	47
Load weight	Pack of 50 no. (kg) Approximate weights above fo numerous timber types and col on pack label or consult the AP	613 r marine p nstruction	800 ly (heavy pl (e.g. ply, OS	1,150 y, but MDF B, MDF etc	1,350 is heavie .). Always	1,700 r). Boards a confirm bo	2,350 available in ard weight
Slinging method	Double wrap (can be single wra 2 no. webbing or endless textile	p if still ba slings (att	nded) and d tach 2 leg cl	choke 1/3 ir nains on top	n from eac o if require	h end with: ed, 2.8t min	WLL).
	Lifting accessories		WLL x n	node facto	rs	Resulting	SWL
2 no. 3.0t min WLL w	ebbing or endless textile slings		3.0t x 1.4 –	20% choke	3.36	t	
Safety considerations	 Ensure leg length is sufficie Where possible, lift boards the pack. If boards are diff Monitor flex in boards and outwards. 	ent to keep of the san erent leng ensure bo	included ar ne or simila ths, ensure pards do not	ngle <90° (e r length to all boards a t flex to the	excluded a avoid boa are include extent th	ngle <45°). rds coming ed in both c at slings sta	loose from hokes. rt to move

Kerbs (using grab)

Load size	Various sizes up to HGV ("titan") kerbs.	1	Max load weight	0.3t			
Load weight	Half batter (HB) and bull nose (BN) kerbs, 100kg each. HGV kerbs, up to 1,000mm long x 415mm Kerb grabs weigh approx. 15kg. Total weight (max) approx. 235kg.	up to 914mm long x 309 n high, weigh approx. 220	5mm high, weiį 0kg each.	gh approx.			
Slinging method	Slinging method Single leg chain sling to kerb grab integral lifting point.						
	Lifting accessories	WLL x mode factors	s Res	ulting SWL			
1 no. 0.5t min WLL sir	1 no. 0.5t min WLL single leg chain sling 0.5t x 1.0 0.5t						
 Safety considerations Ensure kerb grab is compatible with size of kerb to be lifted. Ensure kerb is located centrally within kerb grab. Lifting point must be subject to a thorough visual examination. Inspect kerb for cracking and damage before lifting. Never lift loads above head height. 							

Precast concrete manhole rings



Manhole cover slabs



Pipes (ductile iron)

Load size	Generally supplied in 5.5m or 6.0m lengtl 400mm diameter below. Pipes can also b	ns. Sizes up to More in bundles.	ax load eight 2.9t			
Load weight	801001 no. pipe (5.5m) (kg)911091 no. pipe (6m) (kg)91112Approximate weights only. Confirm pipesupplied in banded bundles, multiply theweightMax bundle weight (for 400 dian	Pipe diameter (n 150 200 250 164 221 276 164 228 289 weight on label or consult number of pipes in the bu peter 5 5m length is appro-	300 350 400 355 438 507 368 473 567 the AP. Where pipes are ndle by individual pipe x 2 900kg			
Slinging method	Single pipes – choke webbing or endless textile slings approx. 1/3 in from either end of the pipe (attach 2 leg chain slings on top if required, 1.6t min WLL). Bundles – double wrap and choke (can be single wrap if still banded) webbing or endless textile slings approx. 1/3 in from either end (attach 2 leg chain slings on top if required, 4.25t min WLL).					
	Lifting accessories	WLL x mode factors	Resulting SWL			
Single pipe – 2 no. 1t Bundle – 2 no. 3t min	min WLL webbing or endless textile slings WLL webbing or endless textile slings	1.0t x 1.4 – 20% choke 3.0t x 1.4 – 20% choke	1.12t 3.36t			
Safety considerations	 Double wrap pipes where practicable Ensure leg length is sufficient to keep Never lift from bundle bands. Check the number of pipes in a bund label for weight displayed on label. I Never lift an incomplete bundle – lift Single pipes must be supported and one 	e or where lifting to height o included angle <90° (excl le and determine bundle v f either >2,900kg, consult the pipes individually if th chocked, when landed, to	/ depth. uded angle <45°). veight. Also check bundle the AP. e bundle is incomplete. prevent movement.			

Pipes (polyethylene)

Load size	Generally supplied in 6.0m or 12.0m leng 400mm diameter below. Pipes can also b	ths. Sizes up to Max be in bundles. weig	ght 2.0t			
Load weight	SDR 11 (16 bar) (kg/m) 3.0 4.1 5.3 1 no. 6m stick (kg) 18 25 32 1 no. 12m stick (kg) 36 50 64 Approximate weights for SDR 11 (16 bar) banded bundles, multiply the number of pipe weight on label or consult the AP. N	pe nominal diameter (outside dia 5 160 180 200 225 25 8.4 10.4 12.4 15.6 19. 50 62 74 94 11. 100 124 148 188 22. black/blue/yellow pipes. W pipes in the bundle by indivi 10.4 10.4 10.4	0 280 315 355 400 0 23.7 29.8 37.7 47.6 4 142 179 226 286 8 284 358 452 572 'here pipes are supplied in dual pipe weight. Confirm ceed 2,000kg.			
Slinging method	Single pipes – choke webbing or endless textile slings approx. 1/3 in from either end of the pipe (attach 2 leg chain slings on top if required, 1.6t min WLL). Bundles – double wrap and choke (can be single wrap if still banded) webbing or endless textile slings approx. 1/3 in from either end (attach 2 leg chain slings on top if required, 2.1t min WLL).					
	Lifting accessories	WLL x mode factors	Resulting SWL			
Single pipe – 2 no. 1t Bundle – 2 no. 3t min	min WLL webbing or endless textile slings WLL webbing or endless textile slings	1.0t x 1.4 – 20% choke 3.0t x 1.4 – 20% choke	1.12t 3.36t			
Safety considerations	 Double wrap pipes where practicable or where lifting to height / depth. Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°). Never lift from bundle bands. Check the number of pipes in a bundle and determine bundle weight. Also check bundle label for weight displayed on label. If either >2,000kg, consult the AP. Never lift an incomplete bundle – lift the pipes individually if the bundle is incomplete. Single pipes must be supported and chocked, when landed, to prevent movement. Lifting of welded together sections is not covered under this item. 					

Palletised materials

Dermontern	RECOMMENDED: Use of pallet cage.		RISK SMENT LY.	
Load size	To fit on standard pallet.		Max load veight	2.2t
Load weight	Various weights of materials. Check label Pallet forks weight approx. 200kg. Pallet cage weight approx. 440kg. Total weight using pallet cage c. 2.14t. When lifting on pallet forks with fork nets	l on goods to ensure mat s, total weight approx. 1.	erials weight <1 7t.	.50t.
Slinging method	Attach single leg chain sling to integral lift Wherever practicable, palletised loads are Where nets are being used, they must b must not be lifted to excessive height or i	ting point. e to be lifted in pallet cag be installed to manufactu n high-risk environments	ges. urer's requireme s.	ents and loads
	Lifting accessories	WLL x mode factors	Result	ting SWL
1 no. 3.15t min WLL s	single leg chain sling	3.15t X 1.0	3.15t	
Safety considerations	 Manufacturer's lifting point must be Use pallet cages wherever practicable Check the load weight on the pallets pallet forks and the pallet cage. Unbanded or unshrink-wrapped mate When using fork nets, ensure they ar 	subject to a thorough vis e. Ensure pallet cage is s s / delivery ticket to ensu erials must only be lifted u e inspected for damage b	ual examination ecurely closed b ure it is within t using pallet cage pefore use.	n. Defore lifting. She WLL of the Ses and not nets.

Boat skip / tipping skip

Load size	Various sizes available. The t common manufacturer. Chec	table belo k the data	w is a g plate o	guide onl n the skip	y for a	Vlax loac weight	1	9.0t
Load weight	Self-weight (kg) SWL (kg) Total weight (kg) Single leg chain min WLL (t) Shackle min WLL (t)	500 216 1,300 1,516 2.0 2.0	Vo 1,000 314 2,600 2,914 5.3 3.25	lume (litr 1,500 448 4,000 4,448 5.3 6.5	es) 2,000 507 5,300 5,807 8.0 8.5	4,000 1,000 8,000 9,000 11.2 12.0		
Slinging method	ng method Single leg chain sling to integral lifting point. If a shackle is required on top of the skip, the shackle is to be nutted/cotter pinned, not screw type.							
	Lifting accessories		w	'LL x mod	e factors		Resul	ting SWL
1 no. single leg chain 1 no. bow shackle (nu	sling as per table itted/cotter pinned) as per tabl	e	As pe As pe	r table x î r table x î	1.0 1.0	As p As p	er table er table	
Safety considerations	 Manufacturer's lifting point and bale arm (through range of motions) must be subject to a thorough visual examination. Ensure cotter pin is in place on shackle. Skips that use the same pin when tipping and lifting should be avoided. Do not overfill skip. Material must be below the fill line. If used for light materials, netting must be used on top to prevent loss of materials. People to stand well out of the way during emptying and moving of the bale arm. Store bale arm down when not in use - Do not rely on gravity keeping the bale arm vertical. 							

Concrete column skip

RECOM	IENDED:				Ç	Ç	
Skip withou	It bale arm.	RECOMI p with ba ith bale arm d in fatal aco n has faller e when una essed by th guidance b	MENDER Ale arm. Ins have be cidents whi a on people avoidable a be AP. Foll eelow.	D: en en en en bow			
Load size	Various sizes available. The table below common manufacturer. Check the data la	is a guid bel on the	e only fo e skip.	or a Max weig	load ht	13	.5t
Load weight	Self-weight (kg) WLL (kg) Total weight (kg) 2 leg chain sling WLL (t) – NO BALE ARM Single leg chain WLL (t) – BALE ARM	500 400 1,500 1,900 2.8 3.15	1,000 500 3,000 3,500 4.25 5.3	Volume 1,500 700 4,500 5,200 7.5 8.0	e (litres) 2,000 700 6,000 6,700 11.2 8.0	3,000 1,000 9,000 10,000 14.0 12.5	4,000 1,500 12,000 13,500 16.0
Slinging method	No bale arm skip: 2 leg chain slings to inte Bale arm skip: Single leg chain sling to int Any shackles required is to be nutted/co required to be determined by a competer	egral lifting egral liftir otter pinno ot person.	g points. ng point. ed, not se	crew typ	e. Capa	city of ar	ny shackle
	Lifting accessories	WLL x	mode fa	ctors	R	esulting S	SWL
1 no. 2 leg chain slings as per table – NO BALE ARM SKIPAs per table x 1.0As per table1 no. single leg chain sling as per table – BALE ARM SKIPAs per table x 1.0As per table							
Safety considerations	 Lifting point(s) and bale arm must be Ensure leg length is sufficient to keep Do not overfill skip. Material must be Stand away during moving of the bale to the crane. Store bale arm down when skip not in Check the Tremie pipe to ensure it is undamaged. Make sure the Tremie pipe 	thorough included below the e arm. Du n use (or s securely f pipe is folc	ly inspect angle <90 e fill line. iring filling secure by fitted and ti ded and ti	ted befor o° (exclud g, bale ar chain for the jubil ied back	re use. ded angle rm must i r transpo lee clip is when tra	e <45°). remain at rtation). tight and velling.	ttached

Crane liftable skip

Load size	8-yard builders skip.	N V	Vax load 7.3t		
Load weight	Dependant on fill material and volume. N Skip self-weight = 840kg SWL = 6,400kg Total weight of full skip = 7,240kg	Norst case to fill line. Che	eck details on data plate.		
Slinging method	4 leg chain slings to manufacturer's lifting points).	points (use bow shackles	, if required, to attach to lifting		
	Lifting accessories	WLL x mode factors	Resulting SWL		
1 no. 11.2t min WLL 4 4 no. 8.5t min WLL bo	leg chain slings ow shackle	11.2t x 1.0 8.5t x 0.7 x 2.1	11.2t 12.5t		
Safety considerations	 Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°) and hooks are facing out from the load, i.e. safety catches on the outside. Skip must be certified for lifting (other than by skip wagon). Do not use side lugs for lifting unless with specific lifting frame. Do not overfill skip. Material must be below the fill line. 'Greedy boards' not to be used. If used for light materials, netting must be used on top to prevent loss of materials. Thoroughly inspect skip and lifting points for damage (rust, holes, damaged edges etc.). If full, inspect bottom as soon as reasonably practicable, and before lifting to extreme height. 				

Bulk bags



Goods cage (up to 5,000kg SWL)



Stillage

Load size	Approx. 1.0m x 1.0m x 0.7m.		Max load weight	1.1t
Load weight	Stillage weight approx. 100kg. Stillage SWL generally 1t. Check stillage for S Total load weight up to approx. 1,100kg.	WL. Do not exceed	SWL of stillage.	
Slinging method	Preferred method: 1 no. 2 leg chain slings, corner post (wrap opposite corner posts), the Alternative method: 1 no. 4 leg chain slings, e to master link.	each leg passed und en choked, or ach leg cradled behir	der stillage, wra nd corner post ar	pped around a nd hooked back
	Lifting accessories	WLL x mode facto	rs Resul	ting SWL
1 no. 1.6t min WLL 2 1 no. 1.6t min WLL 4	leg chain slings, or leg chain slings	1.6t – 20% choke 1.6t	1.28t 1.6t	
 Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°) and hooks are facing out from the load, i.e. safety catches on the outside. Loads in stillages must be evenly distributed and not stacked above the sides. Check stillage for damage before lifting. Beware of rusted bases – check base of stillage for integrity. If in doubt don't lift. Stillages are only to be lifted individually, not as stacks. Where masterlinks are not large enough to safely back hook the sling legs to, the slings can be choked back onto the sling leg. 				

Steel beams

Load size	Various sizes and len	gths up 1	to 10m.				Max weig	load ht	1.7t
					Beam de	pth (mm)		
		152	178	203	254	305	35	6 406	6 457
Load weight	Weight per m (kg)	16.0	19.0	30.0	43.0	54.0 540	67. 67	.1 85.3	3 161.4
	The above are for the available in various s	e maxim izes. Alv	um Univer vays check	sal Bea the we	m (UB) siz	zes in the re lifting	e resp and c	ective dep consult the	oths. Beams are e AP if required.
	Double wrap and cho	oke 1/3 i	n from ead	h end v	with:				
Slinging method	2 leg chain slings, or								
	2 no. webbing or end	lless text	tile slings (attach	2 leg chaii	n slings o	on top	if require	ed, 2.1t min
	Lifting accessories			v	VLL x mod	le factor	s	Res	ulting SWL
1 no. 2.12t min WLL 2	leg chain slings, or			2.12	t – 20% cł	noke		1.70t	
2 no. 2.0t min WLL w	ebbing or endless text	ile slings	5	2.0t	x 1.4 – 20	% choke		2.24t	
Safety considerations	 Ensure leg length Ensure weight of Ensure protection Sections only to Ensure all loose 	h is suffic f section in is usec be lifted items are	cient to ke is known d to prever individual e removed	ep inclu prior to ht dama ly. from t	uded angle lifting. age to soft he load pe	e <90° (e t slings fi rior to lif	exclud rom sl ting.	ed angle < harp edge	:45°). s.

Towable compressor

Load size	Various sizes up to c. 900kg.	Check the d	ata label or	n the plant.	Max load weight	d	0.9t
Load weight	Plant weight (kg) Check data plate for weight.	XAS 38 600 Above weig	Model (A XAS 48 850 hts for guic	Atlas Copco s XAS 58 750 le purposes	xAS 68 850 only.	XAS 88 850	
Slinging method	Single leg chain sling to integr with identifying stickers / mar	al lifting poi nual.	nt. Check	the integral	lifting poir	nt is inten	ded for lifting
1 no. 1 12t min W/LLs	Lifting accessories		WLL x	mode factor	rs 1 13	Resulti	ng SWL
			1.121 / 1.0	, 	1.12		
Safety considerations	 Manufacturer's lifting poi A sweep for loose materia Check weight on plant da 	int must be al to be con ita plate bef	subject to ducted dur ore lifting.	a thorough v ing the test	visual exar lift.	mination.	

Lighting tower

Load size	Various sizes up to 9m mast VT type. Che the plant.	ck the data label on	Max load weight	1.3t
Load weight	Check the plant data plates for specific m VT 1 / VT Hybrid with 9m mast extension	odel weight. weigh approx. 1,250kg		
Slinging method	Single leg chain sling to integral lifting poi with identifying stickers / manual.	int. Check the integral I	ifting point is inte	nded for lifting
	Lifting accessories	WLL x mode factor	s Resul	ting SWL
1 no. 1.5t min WLL sir	ngle leg chain sling	1.5t x 1.0	1.5t	
Safety considerations	 Manufacturers lifting point must be si Check weight on plant data plate befo Ensure the mast and support legs are before lifting. 	ubject to a thorough vis pre lifting. e fully retracted and see	ual examination. cured (i.e. in tran	sport position)

Ride on roller

Load size	Various sizes. Common man 800mm – 1,380mm width. Ch	ufacturer, E leck the dat	Bomag, has ta label on	s sizes from the plant.	Max le weigh	oad It 5	i.5t
			1	Model (Bom	ag spec	ific)	
		BW80AD	BW90AD	BW100AD	BW120/	AD BW135AD	BW138AD
Load weight	Plant weight (kg)	1,900	1,900	3,500	3,650	5,500	5,500
	Check data plate for weight (c may not be included). Above	heck with sweights for	supplier if a guide purp	additional Ri	OPS/FO	PS are installe	ed as weight
Slinging method	Single leg chain sling to integra with identifying stickers / man	al lifting poi Iual.	int. Check	the integral	lifting p	oint is intend	ed for lifting
	Lifting accessories		WLL x	mode facto	rs	Resultin	gSWL
1 no. single leg chain sling as per table			As per tab	ole x 1.0	Δ	s per table	
Safety considerations	 Manufacturers lifting point A sweep for loose material Check weight on plant data Ensure the roller is in a strational stratement of the s	t must be si l to be conc a plate befc aight line, n n place to si	ubject to a lucted duri pre lifting. not articula top movem	thorough vi ng the test l ted, before lent at the n	isual exa lift. lifting. niddle jo	amination. Dint during lif	ting.

Towable pressure washer

Load size	Various sizes up to 1,100 litres capacity (v data label on the plant.	vater tank). Check the N	Max load veight	1.7t
Load weight	Check the plant data plates for specific m add this to the empty plant weight (1 litre 1,100 litre capacity towable pressure was	nodel weight. Check the e of water = 1 kg). sher weighs approx. 600k	capacity of the v g (empty) or 1,7	vater tank and 'OOkg (full).
Slinging method	2 no. webbing or endless textile slings, or the other attached directly to shackle or legs of 4 leg chain sling and attach the slir remaining leg to master link. Shorten leg 4 leg chain slings to integral lifting points.	ne sling basketed through n the front lifting point. ng from shackle to 3 rd leg s as required, or	h the lifting guid Attach slings fro of 4 leg chain sli	e on plant and om basket to 2 ing. Back hook
	Lifting accessories	WLL x mode factors	Resul	ting SWL
2 no. 2.0t min WLL we min WLL bow shackle 1 no. 2.36t min WLL 4	ebbing or endless textile slings & 2 no. 2t s l leg chain slings	Sling basket : 2.0t x 1.4 Sling/shackle : 2.0t x 0.7 2.36t x 1.0	2.8t 1.4t 2.36t	
Safety considerations	 Ensure leg length is sufficient to keep are facing out from the load, i.e. safe Check weight on plant data plate bef Check plant frame to ensure free from Manufacturers lifting point must be safe 	o included angle <90° (ex ety catches on the outside fore lifting. m damage. subject to a thorough visu	cluded angle <4 e. ual examination.	5°) and hooks

Wheeled generator (up to 15kVA)



Plate compactor and trench rammer

Load size	Various sizes. Check the data label on th	e plant.	Max load weight	1.2t
Load weight	Check the plant data plates for specific m Forward/reverse compaction plates (not Trench rammers weight up to 100kg.	nodel weight. coupled together) weig	h in the region 14	45kg – 1,200kg.
Slinging method	Single leg chain sling to integral lifting po with identifying stickers / manual.	int. Check the integral I	ifting point is inte	nded for lifting
	Lifting accessories	WLL x mode factor	s Resul	ting SWL
1 no. 1.5t min WLL si	ngle leg chain sling	1.5t x 1.0	1.5t	
Safety considerations	 Manufacturers lifting point must be s A sweep for loose material to be cond Check weight on plant data plate before 	l ubject to a thorough vis ducted during the test li ore lifting.	ual examination. ft.	

Timber mats (Ekki / bog mats)

C Landon and C Lan	Contraction of the second seco							
Load size	Various lengths from 3n – 300mm.	n – 6m and v	various dep	oths from	ז 70mm ו	Max load weight	2.2t	
Load weight	Thickness70nSize (m x m)1 x 3Weight (kg)227Max to be lifted as pack4Pack (kg)908	nm 1 x 5 1 x 378 32 4 4 1,512 1,29	100mm 3 1 x 4 4 432 4 4 96 1,728	1 x 5 540 4 2,160	150mn 1x3 486 4 1,944	n 200 x 5 1 x 3 310 648 2 3 620 1,944	300mm 1 x 5 1 x 6 1,080 1,944 2 1 2,160 1,944	
Slinging method	Attach chain sling hooks pack, ensure all mats are of lifting bars to bottom to size of hook), it is ac section).	s to integral e stacked win mat lifting b cceptable to	lifting bars th cut outs pars. If the pass the	s (manuf verticall chain sli chain sli	acturer's li y aligned a ng cannot l ng down t	fting points) nd pass chai be passed do he outside (. When lifting as n sling down insid wn the inside (di within the cut o	s a de ue ut
1 no. 2.8t min WLL 2	Lifting accessories		v 2.8t	VLL x mo	de factors	2.8t	esulting SWL	
Safety considerations	 Ensure leg length is are facing out from Manufacturer's lifti A sweep for loose n 	sufficient to the load, i.e ng points mi naterial to b) keep inclu . safety ca ust be subj e conducte	uded ang tches on ect to a ed during	gle <90° (ex the outside thorough v g the test lif	cluded angle e. isual examin ft.	e <45°) and hooks ation.	5

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Transformer (up to 20kVA)

Load size	Various sizes up to 20kVA. Check the dat	a label on the plant.	Max weigl	load ht	0.3t
Load weight	Check the plant data plates for specific m 20kVA output 110V transformer weighs a	odel weight. approx. 200kg.			
Slinging method	Double wrap and choke transformer body Single leg chain slings, or 2 no. webbing or endless textile slings (at	y with: tach 2 leg chain slings o	on top	if required,	1.6t min WLL).
	Lifting accessories	WLL x mode factor	S	Result	ing SWL
1 no. 0.5t min WLL sir 2 no. 1.0t min WLL we	ngle leg chain sling ebbing or endless textile sling	0.5t – 20% choke 1.0t x 1.4 – 20% choke	1	0.4t 1.12t	
Safety considerations	 Ensure leg length is sufficient to keep Use any loops at the top of the transf Ensure protection is used to prevent Check weight on plant data before life 	o included angle <90° (e former to retain the slir damage to soft slings fr fting.	exclude ngs, no rom sh	ed angle <45 ot to lift fron narp edges.	5°). n.

Tool chest

Various sizes up to 2.000 litres capacity. Check the data label on Max load					
Load size	Various sizes up to 2,000 litres capacity. C the plant.	Check the data label on	Max weig	load ght	1.1t
Load weight	Empty tool chest weighs approx. 150kg. Check contents of tool chest before lift excessively heavy materials.	ing to ensure the con	tents	are "standa	ırd" tools, not
Slinging method	Fork guides on bottom: 2no. webbing o slings on top of tool chest (attach 2 leg ch No fork guides on bottom: 2no. double w each end of the tool chest approx. 300r required, 1.6t min WLL).	or endless textile slings ain slings on top if requ wrapped and choked we nm from each end (att	throu uired, ebbin ach 2	ugh fork guid 1.6t min WL Ig or endless 2 leg chain s	des and choke L). textile sling at lings on top if
	Lifting accessories	WLL x mode factor	s	Result	ing SWL
i z no. 2.0t min WLL w	edding or endless textile slings	2.0t x 1.4 – 20% choke		2.24t	
Safety Considerations	 Ensure leg length is sufficient to keep Check contents of tool chest before excessively heavy materials. Webbing slings must be protected from the protected	o included angle <90° (e lifting to ensure the co om sharp edges, not be	xclud ntent worn	led angle <45 s are "standa n, have cuts o	;°). ard″ tools, not or any damage.

Fuel cube (up to 2,000 litres)

Various sizes up to 2.000 litres capacity. Check the data label on Max lad					
Load size	Various sizes up to 2,000 litres capacity. C the plant.	Check the data label on	Max weigł	load ht	3.0t
Load weight	Check weight of tank (empty) on data pla the empty tank weight (1 litre of fuel = 1k 2,000 litres capacity fuel cube weighs app	ate. Check the capacity sg). prox. 1,000kg (empty) o	of the r 3,000	e fuel cube a Okg (full).	nd add this to
Slinging method	4 leg chain slings to integral lifting points. with identifying stickers / manual.	Check the integral lifti	ng poi	nts are inter	nded for lifting
	Lifting accessories	WLL x mode factor	s	Result	ing SWL
1 no. 4.25t min WLL 4	leg chain slings	4.25t x 1.0	2	4.25t	
 Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°) and hooks are facing out from the load, i.e. safety catches on the outside. Manufacturer's lifting points must be subject to a thorough visual examination. Check weight on data plate and include fuel weight. Ensure data plate includes load weight. If it doesn't, only lift fuel cube empty. Ensure inlet / outlet points are securely closed before lifting. Lift slowly and with care due to potential for movement of liquid within the tank and shifting of the centre of gravity. 					

Fuel bowser (up to 1,000 litres)

Various sizes up to 1,000 litres capacity. Check the data label on Max load 2. Ot					
Load size	Various sizes up to 1,000 litres capacity. C the plant.	Check the data label on	Max l weigh	load ht	2.0t
Load weight	Check weight of bowser (empty) on data the empty tank weight (1 litre of fuel = 1k 1,000 litres capacity bowser weighs appro	plate. Check the capacit g). ox. 1,000kg (empty) or 2	ty of t 2,000k	the bowser a	and add this to
Slinging method	4 leg chain slings to integral lifting points. with identifying stickers / manual.	Check the integral liftir	ng poir	nts are inter	nded for lifting
	Lifting accessories	WLL x mode factors	5	Result	ing SWL
1 no. 2.36t min WLL 4	l leg chain slings	2.36t x 1.0	2	2.36t	
 Ensure leg length is sufficient to keep included angle <90° (excluded angle <45°) and hooks are facing out from the load, i.e. safety catches on the outside. Manufacturer's lifting points must be subject to a thorough visual examination. Check weight on data plate and include fuel weight. Ensure data plate includes load weight. If it doesn't, only lift bowser empty. Ensure inlet / outlet points are securely closed before lifting. Lift slowly and with care due to potential for movement of liquid within the tank and shifting of the centre of gravity. 					

Temporary Vertical Concrete Barrier (TVCB)

Load size	Various sizes up to 3.15m long x 0.8m hig	igh x 0.45m deep. Max load weight 2.5t				
Load weight	TVCB approx. weight 2,500kg.					
Slinging method 2 no. webbing or endless textile slings double wrapped and choked around fork guides (attach 2 leg chain slings on top if required, 2.8t min WLL), or						
	Lifting accessories	sories WLL x mode factor		lting SWL		
2 no. 3t min WLL web	bing or endless textile slings	3.0t x 1.4 – 20% choke	3.36t			
Safety considerations	 Ensure leg length is sufficient to keep Any integral lifting points are only to subject to separate lift plan. Integral lifting points, when approved examination before lifting and must be selected appropriately by the AP (a with both the eyebolt supplier and T 	b included angle <90° (e be used with the expre d by the AP for use, mus be protected when not e.g. swivel eyebolts) and VCB supplier instruction	excluded angle <4 ess permission of st be subject to a ; in use. Any eyel d must be inserte ns.	5°). the AP and are thorough visual polts used must d in accordance		

Elite / Legato blocks

Load size	Various sizes up to approx. 1.6m long x 0.	.8m high x 0.8m deep.	Max weig	Max load weight 2.4t		
Load weight	The largest block, 1.6m x 0.8m x 0.8m, weighs approx. 2,400kg. Check with AP for individual block weights.					
Slinging method	Single leg chain sling to lifting clutch. Only use the lifting clutch compatible with the anchor size – do not use lower or higher WLL clutches than the compatible clutch as different clutches are different sizes and may release the load unintentionally.					
Lifting accessories		WLL x mode factors		Resulting SWL		
1 no. 3.15t min WLL single leg chain sling 1 no. compatible lifting clutch		3.15t x 1.0 Clutch WLL x 1.0	3.15t Clutch SWL			
Safety considerations	 Lifting point must be subject to a thor Ensure lifting clutch tab is fully engage Integral lifting points must be protect Only use the lifting clutch compatible 	rough visual examinatic ed and tab is touching b ed when not in use. with the anchor (not lo	on. block. bwer d	or higher WL	L).	

Excavator bucket

Load size	Various sizes to suit excavator sizes up to 35t excavator.			load ght	1.5t	
Load weight	Various weights depending on excavator size and bucket size. The largest standard bucket for a 35t excavator weighs approx. 1,500kg. A standard excavating bucket for a 21t excavator weighs approx. 800kg. Check weight with AP before lifting.					
Slinging method Single leg chain sling attached directly to bucket pin (if suitable size) or choked around the bucket pin.						
	Lifting accessories	WLL x mode factors		Resulting SWL		
1 no. 2.0t min WLL single leg chain sling		2.0t x 1.0		2.0t		
Safety considerations	 Ensure bucket weight is below 1.5t b Ensure bucket is empty before lifting 	efore lifting.				

Hydraulic breaker

Load size	Various sizes to suit excavator sizes up to 21t excavator. Check Max load weight 2.0t					
Load weight	Various weights depending on excavator size and breaker size. A standard breaker for a 21t excavator weighs up to approx. 2,000kg. Check weight with AP before lifting.					
Slinging method 2 no. webbing or endless textile slings, both double wrapped and choked symmetrically about the centre of gravity (approximately in the middle of the unit) (attach 2 leg chain slings on top if required, 2.1t min WLL).						
Lifting accessories		WLL x mode factor	s Resul	Resulting SWL		
2 no. 2.0t min WLL webbing or endless textile slings		2.0t x 1.4 – 20%	2.24t	2.24t		
Safety considerations	 Ensure leg length is sufficient to keep Check weight on plant data plate bef Ensure hoses are tied back to the bre 	o included angle <90° (e fore lifting eaker to avoid them stri	king people.	5°).		

Fence panels (Heras and pedestrian)





PART OF **noch** Group

Acero Building 1 Concourse Way Sheaf Street Sheffield South Yorkshire England S1 2BJ

Tel: 0300 999 1177 Email: nocn@nocn.org.uk www.nocn.org.uk