

EN-US

HS 8200

HS 8007.01.03
www.liebherr.com

LIEBHERR

Construction machines



Concept and characteristics

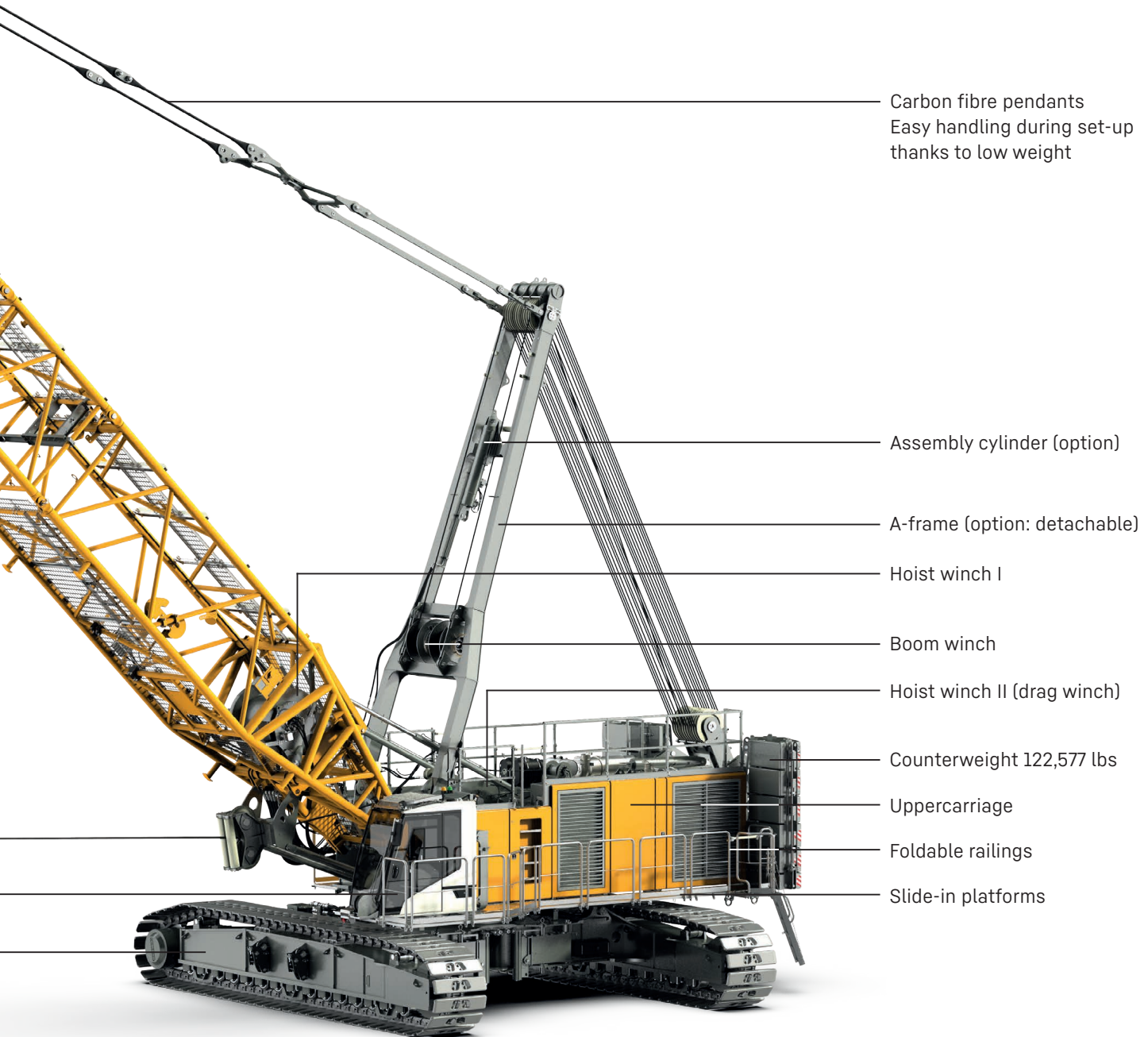
Universal boom head 2220.24
Various roller sets available

Hoist rope guide
Hoist winch I

Cabin

HD undercarriage
Crawlers easily detached





Carbon fibre pendants
Easy handling during set-up
thanks to low weight

Assembly cylinder (option)

A-frame (option: detachable)

Hoist winch I

Boom winch

Hoist winch II (drag winch)

Counterweight 122,577 lbs

Uppercarriage

Foldable railings

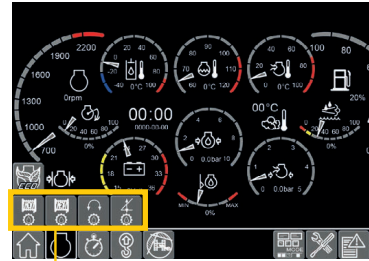
Slide-in platforms



The newly developed cabin combines operator comfort with easy handling.

Air conditioning combined with an air-suspended seat offers an ideal workplace for the operator.

- Completely new cabin design focusing on ergonomics and operating comfort
- Improved soundproofing
- Orthopaedic seat, heatable, coolable and ventilated
- Individually adjustable monitors
- Integrated cool box for storage of provisions
- Charger for mobile devices
- Front window made of safety glass
- Heated outside mirror
- Option: vibration isolation for cabin
- Option: Piling control incl. cabin protection and armoured glass



Gear oil level warning

The new warning allows the operator to check the gear oil levels of both main winches, the swing drive and the luffing winch. This facilitates daily maintenance of the machine.

Example



Gear oil level warning of winch 1 lights up green: Gear oil level of winch 1 is sufficient.



Gear oil level warning of winch 1 lights up yellow after ten seconds: fill gear oil for winch 1.



Ground Pressure Visualization



Technical description



Ground pressure

Ground pressure	14.01 PSI
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Operating weight

Composition of operating weight	basic machine with HD undercarriage, 2 main winches 78,683 lbf including wire ropes, 66 ft main boom, consisting of A-frame, boom foot (33 ft), boom section (10 ft) and boom head (23 ft), 110,893 lbs rear counterweight, flat track pads (width 43.3 inch), 352,740 lbs hook block.
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Total weight	approx. 379,195 lbs
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Equipment

Main boom (2220.24)	max. 223 ft
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Characteristics

modular designed equipment for lifting, dragline or clamshell operation for dragline operation, a rotating fairlead is fitted into the boom foot minimized rope angle to drum resulting in lower rope wear
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Diesel engine

Power rating according to ISO 9249	750 kW (1005 hp) at 1700 rpm
Engine type	Liebherr D 9512 A7-04
Fuel tank capacity	264 gal with continuous level indicator and reserve warning
AdBlue tank capacity	37 gal with continuous level indicator and reserve warning
Exhaust certification	EU Stage V/EPA CARB Tier 4F non-certified emission standard

Noise measurement data and vibration

Noise emission	according to 2000/14/EC directive	
Emission sound pressure level L_{PA}	73 dB(A)	(in the cabin)
Guaranteed sound power level L_{WA}	109 dB(A)	(of the machine)

Vibration transmitted to the machine operator	< 8.2 ft/s ²	(to the hand-arm system)
	< 1.64 ft/s ²	(to the whole body)

Hydraulic system

Hydraulic pumps	Variable pumps in closed and open circuits supplying oil only when needed (flow control on demand)
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Hydraulic oil tank capacity	343 gal
Max. working pressure	5,076 PSI
Max. power at the connection plate	5,076 PSI \approx 616 hp for external appliances
Max. power at the undercarriage	3,626 PSI \approx 415 hp for external appliances
Hydraulic oil	electronic monitoring of all filters use of synthetic environmentally friendly oil possible
Hydraulic retrofit kits for attachments	ready-made customized hydraulic retrofit kits are available e.g. powering casing oscillators, vibrators, hydraulic grabs, fixed leaders

Control

Control	includes all control and monitoring functions, designed to withstand extreme environmental conditions and heavy duty construction tasks
Display	high resolution monitor in the operator's cabin, clear display of complete machine operating data, warnings and failure indications in the required language
Operation	several movements can be performed simultaneously thanks to electro-hydraulic proportional control, all categories of loads can be positioned with utmost precision
Options	PDE*: process data recording LiTU: Liebherr Telematics Unit piling control / chisel control Litronic Grab Matic (dredging assistance system)

Crawlers

Drive system	with fixed axial piston hydraulic motors	
Crawler side frames	maintenance-free, with hydraulic chain tensioning device	
Brake	hydraulically released, spring-loaded multi-disc holding brake	
Drive speed	1 st gear	0.22 mph
	2 nd gear	0.56 mph
	3 rd gear	0.81 mph
Flat track pads	width 43.3"	
Options	self-assembly system, jack-up system	

Swing gear

Drive system	3 swing drives, with fixed axial piston hydraulic motors, planetary gearbox, pinion	
Swing ring	Roller bearing with internal teeth	
Brake	hydraulically released, spring-loaded multi-disc holding brake	
Swing speed	0-3.33 rpm continuously variable, selector for 3 speed ranges to increase swing precision	
Lubrication system	automatic central lubrication system reduces maintenance requirements and increases service life	
Option	Display of swing angle	

Hoisting gear

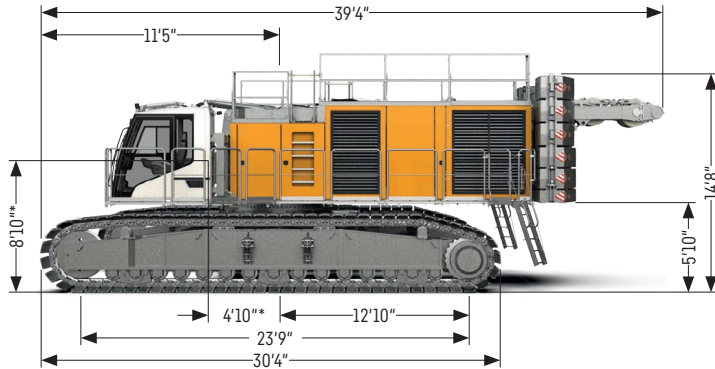
Main winches	pressure controlled, variable flow hydraulic motors for the drag and hoist winches, full utilisation of engine power as the winch speed is automatically adjusted to suit the respective line pull Free fall: clutch and braking functions are provided by the service brake (low wear and maintenance-free multi-disc brake in compact design)		
Winch options	Standard	77,161 lbs shaft excavation	99,208 lbs drag winch
Line pull (nominal load)	78,683 lbf	78,683 lbf** / 74,186 lbf***	89,923 lbf
Rope diameter	1.4"	1.4"	1.7"
Drum diameter	33.1"	33.1"	42.1"
Rope speed	0-354 ft/min	0-361 ft/min	0-262 ft/min
Rope capacity in the 1st layer	144.3 ft*	144.3 ft*	149.6 ft*
Rope capacity in 4 layers	772.6 ft*	772.6 ft*	
Rope capacity in the 5th layer		1,007.2 ft*	
		without free fall	
	*effective length	**winch pull _(layers 1-4)	***5th layer
Options			
Auxiliary winch	15,737 lbf in boom foot		
Tagline winch	6,744 lbf with free fall		
Tagline winch	15,737 lbf with free fall		

Boom winch

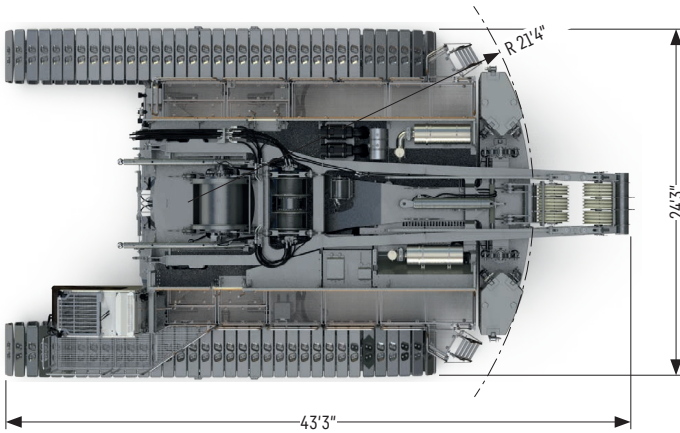
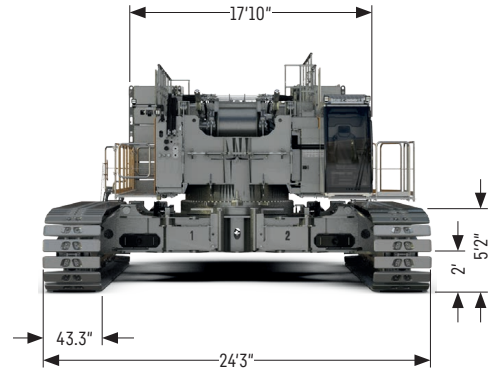
Line pull	max. 2x 35,969 lbf
Rope diameter	24 mm
Boom luffing	15-84° in 134 s

Dimensions

Basic machine with undercarriage



*Boom pivot point



Remarks

- Liebherr cable excavator HS 8007.01.03
- Designed according to EN 474-1 and EN 474-12. Designed and tested in accordance to ASME B 30.5
- Machine standing on firm, horizontal ground.
- The weight of the lifting device (pulley block, hoist ropes, shackles etc.) must be deducted from the load capacity.
- Additional equipment on boom (e.g. walkways) must be deducted from the lifting capacity.
- For max. wind speed please refer to lift chart in operator's cab or manual.
- Working radii are measured from centre of swing and under load.
The load capacities are valid for 360 degrees of swing.
- Weights may vary depending on the delivered configuration of the machine filling level of the tanks as well as generally valid tolerances.
- The figures in this brochure may include options which are not within the standard scope of supply of the machine.

Grab versions



Casing oscillator

Max. drilling diameter

ft 12.5



Further information on material handling



Dredging assistant (option)



Grab operation

Capacities in [1000 lbs]

*	Boom length [ft]															
	66		76		85		95		105		115		125		134	
	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6
20	116.9	116.9	116.9	116.9	116.9	116.9										
25	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
30	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
35	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
40	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
45	107.6	114.2	107.9	114.6	108.0	114.6	108.0	114.6	107.8	114.5	107.7	114.3	107.5	114.1	107.3	113.9
50	92.3	98.0	92.7	98.4	92.7	98.4	92.7	98.5	92.5	98.3	92.4	98.1	92.1	97.9	91.9	97.6
55	80.3	85.5	80.8	85.9	80.8	85.9	80.8	85.9	80.6	85.7	80.5	85.6	80.2	85.3	79.9	85.0
60	70.8	75.4	71.3	75.9	71.3	75.9	71.3	75.9	71.1	75.7	71.0	75.6	70.7	75.3	70.4	75.0
65	62.9	67.0	63.5	67.7	63.5	67.7	63.6	67.8	63.4	67.5	63.2	67.4	62.9	67.1	62.6	66.8
70	56.0	59.9	57.0	60.8	57.0	60.9	57.1	60.9	56.9	60.7	56.7	60.6	56.4	60.2	56.1	60.0
75			51.3	54.9	51.5	55.0	51.6	55.1	51.4	54.9	51.3	54.8	50.9	54.5	50.7	54.2
80			46.3	49.6	46.7	50.0	46.9	50.2	46.7	50.0	46.6	49.8	46.2	49.5	46.0	49.2
85					42.5	45.6	42.8	45.8	42.6	45.7	42.5	45.5	42.2	45.2	41.9	44.9
90							39.2	42.0	39.0	41.9	38.9	41.8	38.6	41.4	38.3	41.2
95							35.9	38.6	35.8	38.5	35.7	38.4	35.4	38.1	35.2	37.9
100									32.9	35.5	32.9	35.5	32.6	35.1	32.4	34.9
105									30.3	32.7	30.4	32.8	30.1	32.5	29.9	32.3
110											28.0	30.3	27.8	30.1	27.6	29.9
115											25.9	28.1	25.7	27.9	25.5	27.7
120													23.8	25.8	23.6	25.7
125													22.0	24.0	21.9	23.9
130															20.3	22.2
135															18.7	20.6

* Rear counterweight in 1000 lbs

TLT 11981105 M282769 PF. Stability calculated according to EN 474-12. Max. capacities do not exceed 66% of tipping load.

Load capacities with hydraulic grab

Impact compaction



Impact compaction

Max. counterweight lbs 110,893

Capacities [lbs]

Radius [ft]	Boom length [ft]								
	66	76	85	95	105	115	125	134	144
27	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
30	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
33	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
36		77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
39			77.2	77.2	77.2	77.2	77.2	77.2	77.2

TLT 11981105 M282769 PF. Stability calculated according to EN 474-12. Max. capacities do not exceed 75% of tipping load. All loads given are max. values and must not be exceeded. They are only permitted in two-rope automatic operation and are valid for work on a surface with max. inclination of 1%. Lifting heights must not exceed 98.4 ft.

Special applications

- Vibro-flot (deep vibrator)
- Hammer
- Vibrator (free-hanging)
- Shaft excavation
- Rock handling
- Magnet system
- Demolition (longer main booms available on request)

Capacities in [1000 lbs]

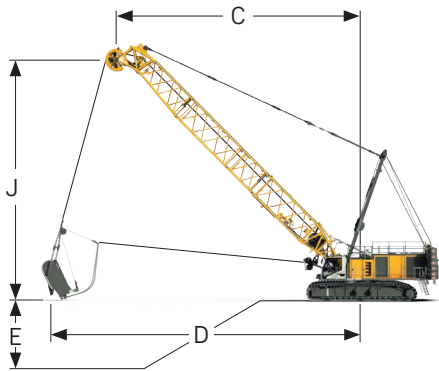
* Radius [ft]	Boom length [ft]															
	66		76		85		95		105		115		125		134	
	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6
20	116.9	116.9	116.9	116.9	116.9	116.9										
25	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
30	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
35	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
40	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
45	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9	116.9
50	104.8	111.4	105.3	111.9	105.3	111.9	105.3	111.9	105.1	111.7	105.0	111.5	104.7	111.2	104.4	110.9
55	91.3	97.1	91.8	97.6	91.8	97.6	91.8	97.7	91.6	97.4	91.4	97.2	91.1	96.9	90.8	96.6
60	80.4	85.6	81.0	86.2	81.0	86.2	81.1	86.3	80.8	86.0	80.6	85.9	80.3	85.5	80.0	85.2
65	71.4	76.2	72.2	76.9	72.2	76.9	72.2	77.0	72.0	76.7	71.8	76.6	71.5	76.2	71.1	75.9
70	63.7	68.0	64.7	69.1	64.8	69.2	64.9	69.2	64.6	69.0	64.5	68.8	64.1	68.4	63.8	68.1
75			58.3	62.4	58.5	62.5	58.7	62.7	58.4	62.4	58.2	62.3	57.9	61.9	57.6	61.6
80			52.7	56.4	53.1	56.8	53.3	57.0	53.1	56.8	52.9	56.6	52.5	56.2	52.2	55.9
85					48.3	51.8	48.6	52.1	48.4	51.9	48.3	51.8	47.9	51.4	47.6	51.1
90							44.5	47.7	44.3	47.6	44.2	47.5	43.8	47.1	43.6	46.8
95							40.8	43.8	40.7	43.8	40.6	43.7	40.3	43.3	40.0	43.0
100									37.4	40.3	37.4	40.3	37.1	39.9	36.8	39.7
105									34.5	37.2	34.5	37.2	34.2	36.9	33.9	36.7
110											31.9	34.5	31.6	34.2	31.3	33.9
115											29.4	31.9	29.2	31.7	29.0	31.5
120													27.0	29.4	26.8	29.2
125													25.0	27.2	24.9	27.1
130															23.0	25.2
135															21.2	23.4

*Rear counterweight in 1000 lbs

TLT 11981105 M282769 PF. Stability calculated according to EN 474-12. Max. capacities do not exceed 75% of tipping load.

Load capacities with hydraulic grab

Dragline equipment



Digging diagram

C = Radius / dumping radius

D = Max. digging radius = approx. C + 1/3 to 1/2 J

E = Digging depth = approx. 40-50% of C

J = Height to centre rope pulley boom head



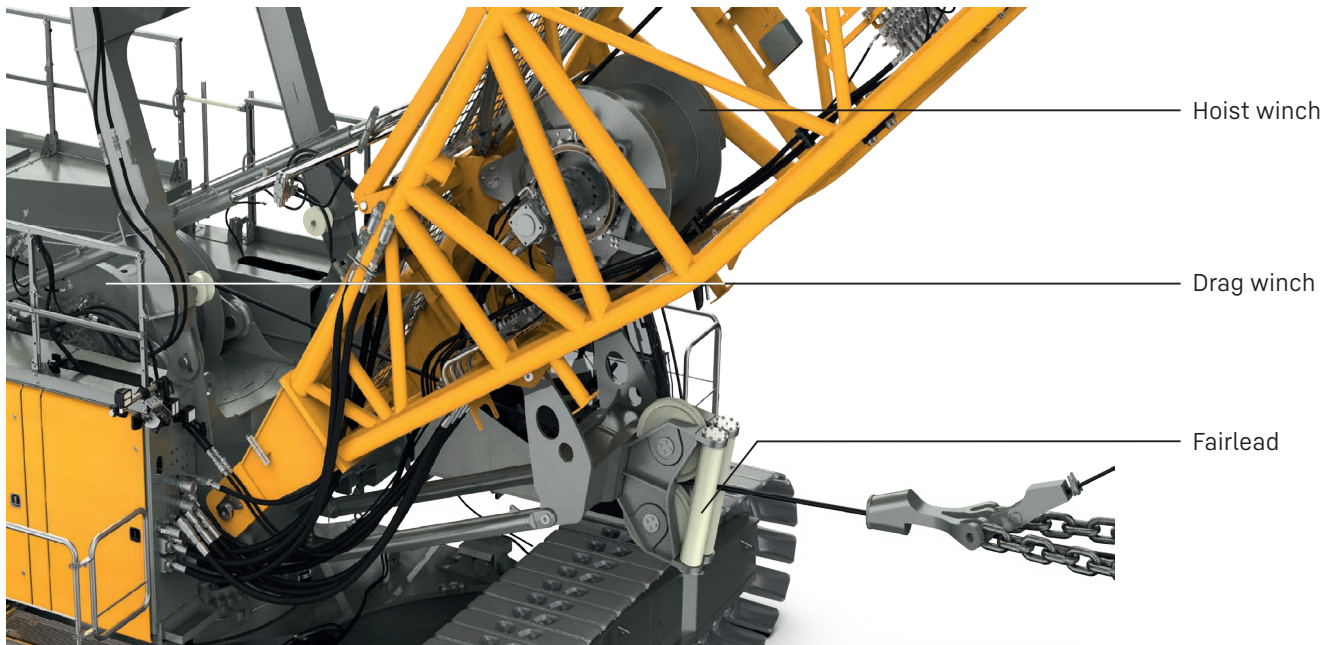
Capacities in dragline operation

Capacities [x 1000 lbs]

	Boom length [ft]												
	66				76				85				
	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	
alpha [°]													
60	42.4	108.3	77.1	77.1	47.3	108.3	77.1	77.1	52.3	108.3	77.1	77.1	
55	47.0	102.9	77.1	77.1	52.6	102.9	77.1	77.1	58.3	102.9	77.1	77.1	
50	51.3	96.8	77.1	77.1	57.6	96.8	77.1	77.1	64.0	96.8	73.2	76.9	
45	55.4	90.0	77.1	77.1	62.3	90.0	74.9	77.0	69.3	90.0	65.9	70.3	
40	58.9	82.6	77.1	77.1	66.4	82.6	70.0	74.7	74.0	82.6	59.8	63.9	
35	62.0	74.7	74.8	76.7	70.2	74.7	64.5	68.8	78.2	74.7	55.0	58.9	
30	64.9	66.2	71.5	76.2	73.4	66.2	60.4	64.6	81.9	66.2	51.3	54.9	

Capacities [x 1000 lbs]

	Boom length [ft]												
	95				105				115				
	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	
alpha [°]													
60	57.1	108.3	77.1	77.1	62.0	108.3	75.0	76.9	67.0	108.3	68.9	73.5	
55	63.9	102.9	73.2	77.0	69.6	102.9	65.3	69.7	75.3	102.9	57.9	61.9	
50	80.4	96.8	64.5	68.7	76.6	96.8	56.7	60.6	82.9	96.8	50.2	53.8	
45	76.2	90.0	57.4	61.3	83.1	90.0	50.2	53.7	90.1	90.0	44.1	47.4	
40	81.5	82.6	51.9	55.5	89.1	82.6	45.1	48.4	96.6	82.6	39.6	42.6	
35	86.3	74.7	47.5	51.0	94.4	74.7	41.2	44.3	102.4	74.7	36.0	38.8	
30	90.5	66.2	44.1	47.3	99.0	66.2	38.1	41.0	107.5	66.2	33.2	35.9	



Capacities [x 1000 lbs]

		Boom length [ft]											
		125				134				144			
		C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]
alpha [°]	60	71.9	108.3	61.8	66.0	76.8	108.3	55.7	59.5	81.7	108.3	50.2	53.8
	55	80.9	102.9	51.7	55.4	86.5	102.9	46.4	49.8	92.2	102.9	41.5	44.7
	50	89.3	96.8	44.3	47.7	95.7	96.8	39.6	42.5	101.9	96.8	35.2	38.0
	45	97.1	90.0	39.0	41.9	104.0	90.0	34.5	37.3	111.0	90.0	30.4	33.0
	40	104.2	82.6	34.7	37.4	111.7	82.6	30.5	33.1	119.2	82.6	26.7	29.1
	35	110.6	74.7	31.3	33.9	118.6	74.7	27.4	29.9	126.6	74.7	23.9	26.1
	30	116.1	66.2	28.7	31.2	124.6	66.2	25.0	27.3	133.0	66.2	21.5	23.7

Capacities [x 1000 lbs]

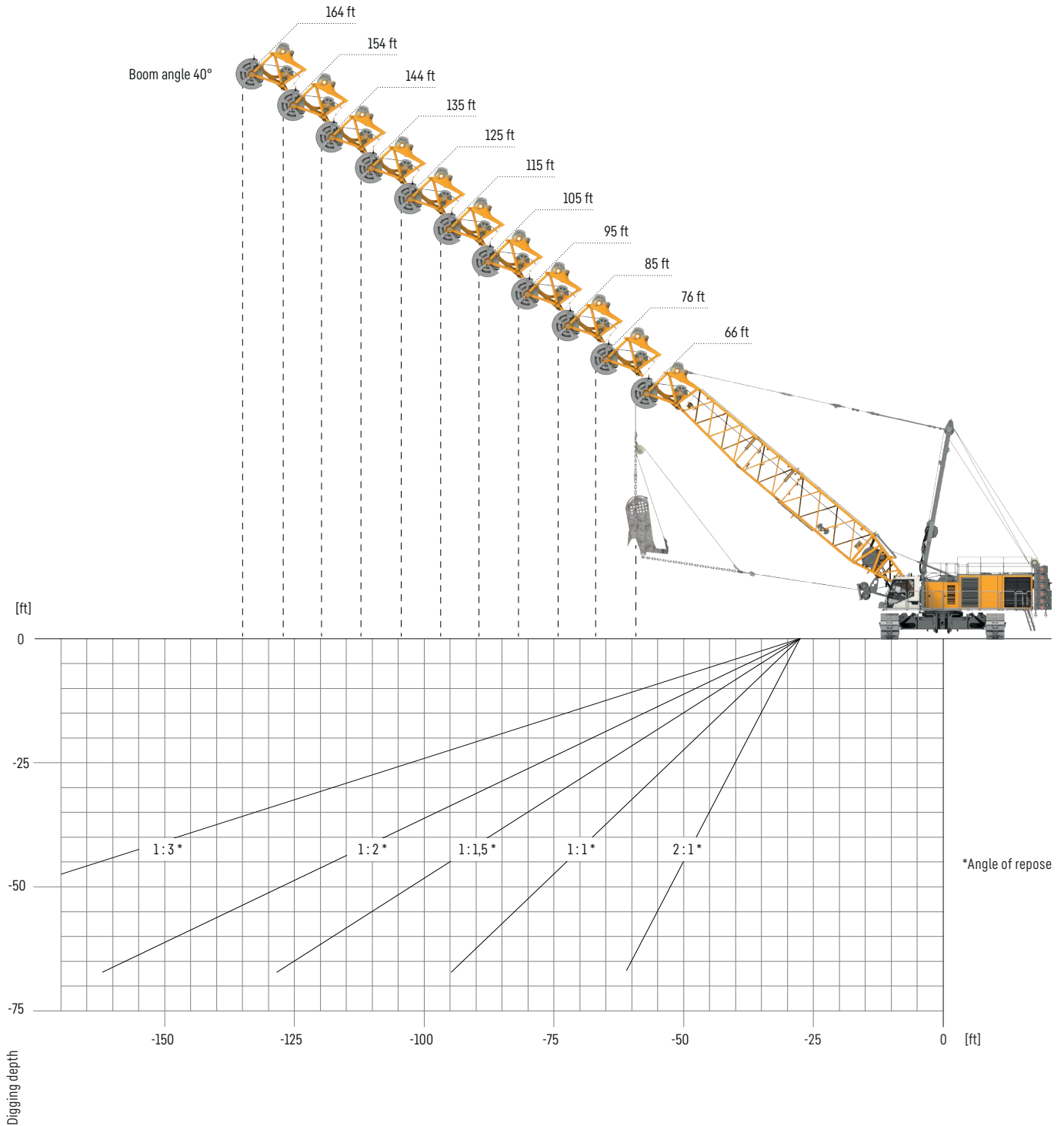
**		Boom length [ft]											
		154				164				174			
		C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]	C [ft]	J [ft]	110.9* [x 1000 lbs]	122.6* [x 1000 lbs]
alpha [°]	60	86.6	108.3	45.5	48.9	91.7	108.3	41.0	44.2	96.6	108.3	37.2	40.2
	55	97.8	102.9	37.3	40.3	103.4	102.9	33.5	36.3	109.0	102.9	30.1	32.7
	50	108.3	96.8	31.4	34.0	114.6	96.8	27.9	30.4	120.9	96.8	24.7	27.1
	45	118.0	90.0	27.0	29.3	125.0	90.0	23.5	25.9	131.9	90.0	20.5	22.7
	40	126.8	82.6	23.4	25.7	134.3	82.6	20.1	22.4	141.9	82.6	17.1	19.3
	35	134.7	74.7	20.6	22.8	142.7	74.7	17.4	19.5	150.8	74.7	14.6	16.6
	30	141.6	66.2	18.3	20.4	150.3	66.2	15.2	17.1	158.7	66.2	12.6	14.4

TLT 11981105 M282769 PF. Max. capacities in metric tonnes do not exceed 75 % of tipping load. Above capacities are for reference only and are not programmed in the LML system. The size of the bucket has to be determined according to local conditions.

* Counterweight

** These boom lengths can only be used in combination with the 77,162 drag winch.

Planning aid for dragline operation



Selection of dragline bucket and possible digging depths at 40° boom angle

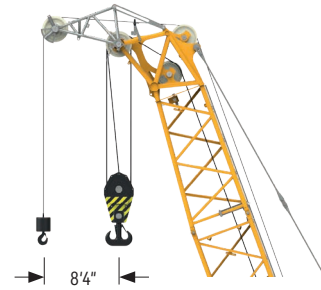
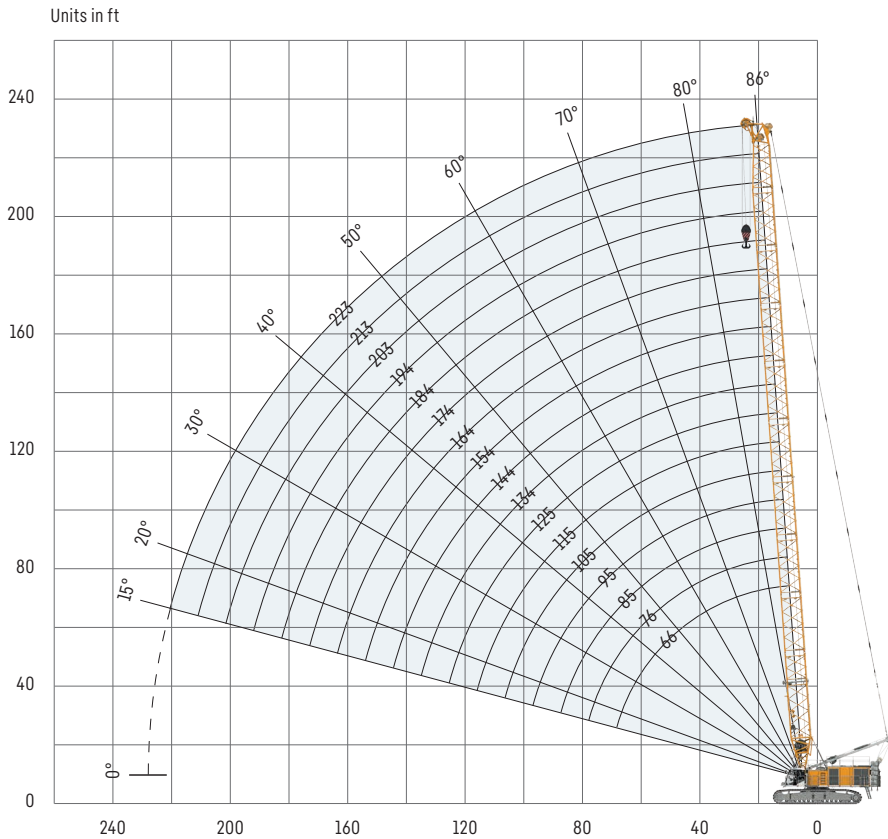
Main boom [ft]	85	105	115	125	135	144
Dragline bucket [m ³ / yd ³]	6.5 / 8.5	6.5 / 8.5	6.5 / 8.5	6.2 / 8.0	5.8 / 7.5	4.6 / 6.0

Density: 1.8 tm³ and fill factor 0.8

*The digging depth depends on the material's angle of repose.

The planning aid for dragline operation refers to the 35 t drag winch.

Lifting operation



Auxiliary jib 77,162 lbs

The maximum capacity of the auxiliary jib is 77,162 lbs.

The corresponding load chart is programmed in the LML system.

Main boom configuration

Boom section	Amount of boom sections																
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Boom foot 33 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boom section 10 ft	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boom section 20 ft		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	
Boom head 23 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boom length [ft]	66	76	85	95	105	115	125	134	144	154	164	174	184	194	203	213	223
Auxiliary jib	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* preferred boom combinations

Capacities in [1000 lbs]

* Radius [ft]	Boom length [ft]															
	66		76		85		95		105		115		125		134	
	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6
15.6	440.9	440.9														
20.0	400.2	402.5	381.6	403.5	364.4	385.3	348.5	368.5	333.8	353.1						
25.0	294.3	311.4	283.8	300.3	273.7	289.6	264.2	279.6	255.2	270.2	246.6	261.1	238.6	252.7	230.8	244.5
30.0	231.5	245.2	224.7	238.0	217.9	230.8	211.6	224.1	205.4	217.6	199.4	211.4	193.7	205.4	188.2	199.6
35.0	188.2	199.5	185.1	196.2	180.2	191.0	175.6	186.2	170.9	181.3	166.5	176.7	162.2	172.1	158.0	167.7
40.0	153.5	162.8	153.9	163.3	152.9	162.3	149.4	158.5	145.7	154.7	142.3	151.1	138.8	147.5	135.5	144.0
45.0	128.7	136.7	129.2	137.2	129.2	137.2	129.2	137.2	126.5	134.4	123.7	131.5	120.8	128.4	118.0	125.6
50.0	110.2	117.2	110.7	117.7	110.7	117.7	110.7	117.7	110.4	117.4	108.9	115.9	106.4	113.3	104.1	110.9
55.0	95.8	102.0	96.4	102.6	96.3	102.5	96.3	102.5	96.0	102.2	95.8	102.0	94.7	101.0	92.7	98.9
60.0	84.2	89.8	84.9	90.5	84.8	90.4	84.8	90.4	84.5	90.1	84.3	89.9	83.8	89.4	83.2	88.9
65.0	74.6	79.7	75.4	80.5	75.4	80.5	75.5	80.5	75.1	80.2	74.9	80.0	74.4	79.5	74.1	79.1
70.0	53.6	53.6	67.5	72.1	67.6	72.2	67.6	72.3	67.3	71.9	67.1	71.7	66.6	71.2	66.2	70.9
75.0			60.7	65.0	60.9	65.2	61.0	65.3	60.7	65.0	60.5	64.7	60.0	64.3	59.6	63.9
80.0			53.6	53.6	55.1	59.1	55.3	59.3	55.0	59.0	54.8	58.8	54.3	58.3	53.9	57.9
85.0					50.4	53.7	50.6	54.0	50.4	53.7	50.2	53.6	49.7	53.4	49.4	53.1
90.0							46.2	49.7	46.0	49.5	45.8	49.3	45.4	48.8	45.0	48.5
95.0							42.3	45.5	42.1	45.4	42.0	45.3	41.5	44.8	41.2	44.5
100.0									38.6	41.7	38.6	41.6	38.1	41.2	37.8	40.9
105.0									35.5	38.4	35.5	38.4	35.1	38.0	34.7	37.7
110.0											32.6	35.4	32.3	35.0	32.0	34.7
115.0											30.0	32.7	29.7	32.4	29.5	32.1
120.0													27.4	29.9	27.2	29.7
125.0													25.2	27.6	25.1	27.5
130.0															23.1	25.4
135.0															21.2	23.4

*Rear counterweight in 1000 lbs

TLT 11970165 M282769 PF. Above load charts are for reference only. For actual lift duty please refer to load chart in operator's cabin or manual. Load charts for lifting operation are valid with classification according to ISO 4301-1/1986, group A1.



www.liebherr.com/CranePlanner

Crane Planner 2.0

Capacities in [1000 lbs]

		Boom length [ft]																
		144		154		164		174		184		194		203		213		223
*		110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	110.9	122.6	122.6
25		183.0	194.1	177.9	188.7	173.0	183.6	168.2	178.6	163.6	173.8	159.2	169.1	154.7	164.5			
30		154.0	163.5	150.0	159.3	146.2	155.3	142.4	151.4	138.8	147.6	135.3	143.9	131.8	140.3	128.5	136.8	
35		132.2	140.5	129.0	137.2	125.9	133.9	122.8	130.7	119.8	127.6	116.9	124.5	114.0	121.5	111.2	118.6	133.4
40		115.2	122.7	112.6	119.9	109.9	117.1	107.3	114.4	104.8	111.7	102.2	109.1	99.8	106.6	97.3	104.0	115.7
45		101.7	108.4	99.4	106.0	97.0	103.6	94.8	101.2	92.6	98.9	90.4	96.6	88.2	94.3	86.0	92.1	101.5
50		90.6	96.6	88.5	94.6	86.5	92.4	84.5	90.3	82.5	88.2	80.5	86.2	78.5	84.2	76.6	82.2	89.9
55		81.3	86.9	79.5	85.0	77.6	83.1	75.8	81.2	74.0	79.3	72.2	77.5	70.4	75.6	68.6	73.8	80.2
60		73.4	78.6	71.8	76.9	70.1	75.1	68.4	73.4	66.7	71.7	65.1	70.0	63.4	68.3	61.8	66.6	72.0
65		65.7	70.3	65.2	69.9	63.6	68.3	62.1	66.7	60.5	65.1	59.0	63.5	57.4	61.9	55.9	60.4	64.9
70		59.1	63.3	58.6	62.9	57.9	62.3	56.5	60.9	55.0	59.3	53.6	57.9	52.5	56.4	51.1	54.9	58.8
75		53.6	57.3	53.3	56.9	52.7	56.3	52.0	55.8	50.6	54.3	49.3	53.3	47.9	51.9	46.5	50.5	53.4
80		48.8	52.5	48.3	52.0	47.8	51.5	47.2	50.9	46.3	50.2	45.1	48.9	43.7	47.5	42.4	46.2	49.1
85		44.5	47.9	44.0	47.5	43.4	46.9	42.9	46.4	42.3	45.7	41.3	44.9	40.0	43.6	38.8	42.3	44.8
90		40.6	43.9	40.2	43.5	39.6	42.8	39.1	42.3	38.4	41.7	37.9	41.1	36.7	40.1	35.5	38.9	41.0
95		37.2	40.3	36.8	39.9	36.2	39.3	35.7	38.7	35.0	38.1	34.5	37.5	33.6	36.9	32.5	35.7	37.6
100		34.2	37.1	33.7	36.7	33.1	36.0	32.6	35.5	32.0	34.9	31.4	34.3	30.8	33.7	29.8	32.9	34.5
105		31.4	34.2	31.0	33.8	30.4	33.1	29.9	32.6	29.2	32.0	28.7	31.4	28.0	30.8	27.3	30.2	31.6
110		28.9	31.6	28.5	31.1	27.9	30.5	27.4	30.0	26.7	29.4	26.2	28.8	25.5	28.1	24.9	27.5	29.1
115		26.6	29.2	26.2	28.7	25.6	28.1	25.1	27.6	24.5	27.0	23.9	26.4	23.2	25.7	22.6	25.1	26.7
120		24.6	27.0	24.1	26.6	23.5	25.9	23.0	25.4	22.4	24.8	21.8	24.2	21.2	23.6	20.6	23.0	24.5
125		22.6	24.9	22.2	24.5	21.6	23.9	21.1	23.4	20.5	22.8	19.9	22.2	19.2	21.6	18.7	21.0	22.3
130		20.8	23.0	20.5	22.7	19.9	22.1	19.4	21.6	18.7	20.9	18.2	20.4	17.5	19.7	16.9	19.1	20.3
135		19.1	21.3	18.8	20.9	18.2	20.4	17.7	19.9	17.1	19.2	16.6	18.7	15.9	18.0	15.3	17.4	18.4
140		17.5	19.6	17.3	19.3	16.7	18.8	16.2	18.3	15.6	17.6	15.0	17.1	14.4	16.4	13.8	15.8	16.7
145				15.8	17.8	15.3	17.2	14.8	16.8	14.2	16.2	13.6	15.6	13.0	14.9	12.4	14.4	15.1
150				14.4	16.3	13.9	15.8	13.5	15.4	12.9	14.8	12.3	14.2	11.7	13.6	11.1	13.0	13.7
155					12.6	14.5	12.3	14.1	11.6	13.5	11.1	13.0	10.4	12.3	9.9	11.7	12.3	
160					11.4	13.2	11.1	12.9	10.5	12.3	10.0	11.7	9.3	11.1	8.7	10.5	11.0	
165							9.9	11.7	9.4	11.1	8.9	10.6	8.2	9.9	7.6	9.4	9.8	
170							8.8	10.5	8.3	10.0	7.8	9.5	7.2	8.9	6.6	8.3	8.7	
175									7.3	8.9	6.9	8.5	6.2	7.8	5.7	7.3	7.6	
180											5.9	7.5	5.3	6.9	4.8	6.3	6.6	
185											5.0	6.6	4.4	6.0	3.9	5.4	5.6	
190													3.6	5.1	3.1	4.6	4.7	
195													2.8	4.2	2.3	3.7	3.9	
200																2.9	3.1	
205																	2.3	

*Rear counterweight in 1000 lbs

TLT 11970165 M282769 PF. Above load charts are for reference only. For actual lift duty please refer to load chart in operator's cabin or manual. Load charts for lifting operation are valid with classification according to ISO 4301-1/1986, group A1.

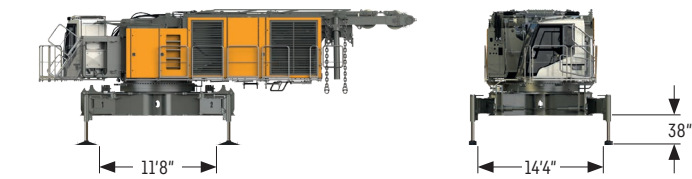
Load capacities in [1000 lbs] with 143,700 lbs counterweight upper carriage and counterweight at the carbody 79,400 lbs

	Boom length [m]								
	144	154	164	174	184	194	203	213	223
25	295.2	278.8							
30	242.7	236.3	230.1	224.0	211.1	197.6	184.3		
35	205.3	200.3	195.5	190.8	186.3	181.7	169.6	157.7	145.9
40	177.1	173.2	169.3	165.5	161.8	158.1	154.6	145.1	134.7
45	155.2	151.9	148.7	145.5	142.4	139.3	136.3	133.4	123.5
50	137.7	134.9	132.1	129.4	126.6	124.0	121.4	118.8	114.9
55	123.4	120.9	118.4	116.0	113.6	111.3	108.9	106.7	104.4
60	111.4	109.2	107.0	104.9	102.7	100.6	98.5	96.4	94.3
65	100.4	99.3	97.3	95.3	93.3	91.4	89.5	87.6	85.7
70	90.3	89.9	88.9	87.1	85.3	83.5	81.7	80.0	78.2
75	81.8	81.3	80.7	80.0	78.3	76.6	74.9	73.3	71.6
80	74.5	74.0	73.4	72.9	72.1	70.6	68.9	67.4	65.8
85	68.1	67.7	67.0	66.5	65.9	65.2	63.6	62.2	60.7
90	62.6	62.1	61.5	61.0	60.3	59.8	58.9	57.5	56.0
95	57.7	57.2	56.6	56.1	55.4	54.9	54.2	53.6	51.9
100	53.6	53.2	52.5	52.0	51.4	50.8	50.2	49.6	48.1
105	49.7	49.2	48.6	48.1	47.5	46.9	46.2	45.7	44.8
110	46.1	45.7	45.1	44.6	43.9	43.4	42.7	42.1	41.4
115	42.9	42.5	41.9	41.4	40.7	40.2	39.5	38.9	38.2
120	40.0	39.6	39.0	38.5	37.8	37.3	36.6	36.0	35.3
125	37.3	36.9	36.3	35.8	35.2	34.6	33.9	33.3	32.7
130	34.9	34.5	33.9	33.4	32.7	32.2	31.5	30.9	30.2
135	32.6	32.2	31.6	31.1	30.5	29.9	29.3	28.7	28.0
140	30.4	30.1	29.5	29.1	28.4	27.9	27.2	26.6	25.9
145	28.2	28.1	27.6	27.1	26.5	25.9	25.3	24.7	24.0
150		26.3	25.8	25.3	24.7	24.1	23.5	22.9	22.2
155		23.5	24.1	23.6	23.0	22.5	21.8	21.2	20.5
160			22.4	22.0	21.4	20.9	20.2	19.6	18.9
165			20.0	20.5	19.9	19.4	18.8	18.2	17.5
170				19.1	18.5	18.0	17.4	16.8	16.1
175				17.0	17.2	16.7	16.1	15.5	14.8
180					15.9	15.5	14.9	14.3	13.6
185						14.3	13.7	13.1	12.5
190						13.2	12.6	12.0	11.4
195							11.5	11.0	10.3
200							10.5	10.0	9.3
205								9.0	8.4
210								8.1	7.5
215									6.6
220									5.8

TLT 11970165 M282769 PF. Above load charts are for reference only. For actual lift duty please refer to load chart in operator's cabin or manual. Load charts for lifting operation are valid with classification according to ISO 4301-1/1986, group A1.

Transport dimensions and weights

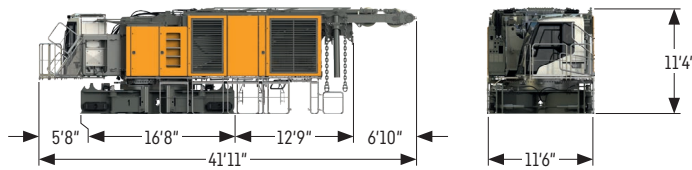
Basic machine and main boom (2220.24)



Basic machine on jack-up system

supported by hydraulic cylinders (jack-up system) for loading/unloading

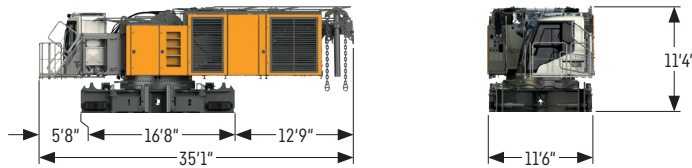
*Telescopic hydraulic cylinders (jack-up system)



Basic machine (transport option I)

with A-frame, self-assembly system, 350 kN hoist winch II, without boom foot, basic counterweight and crawlers - fully tanked and ready for operation

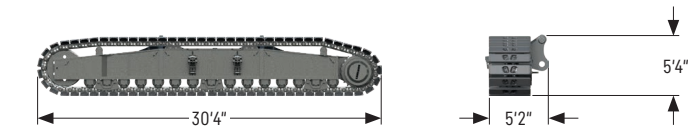
Weight without hoist rope	lbs	122,136
Weight with hoist rope	lbs	123,459
Weight of hoist rope	lbs/ft	4.37



Basic machine (transport option II)

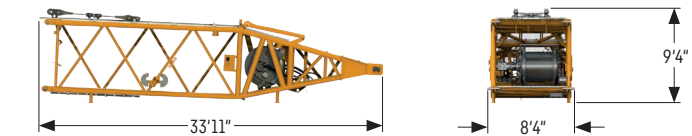
with self-assembly system, 350 kN hoist winch II, without A-frame, walkways, boom foot, basic counterweight and crawlers - fully tanked and ready for operation

Weight without hoist rope	lbs	104,499
Weight with hoist rope	lbs	105,822
Weight of hoist rope	lbs/ft	4.37



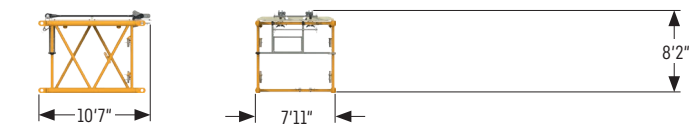
Crawler (2x)

Flat track pads	inch	43.3
Weight	lbs	55,116



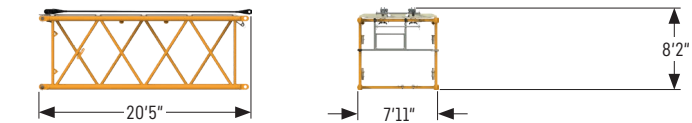
Boom foot 33 ft (2220.24)

Weight incl. 350 kN hoist winch I without hoist rope	lbs	28,840
Weight incl. 350 kN hoist winch I with hoist rope	lbs	24,163
Weight of hoist rope	lbs/ft	4.37



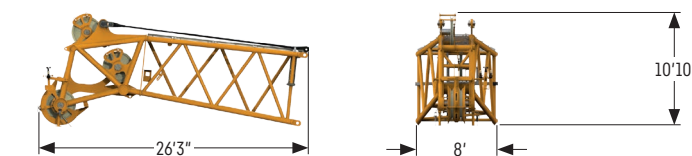
Boom section 10 ft (2220.24)

Weight incl. pendant straps	lbs	2,359
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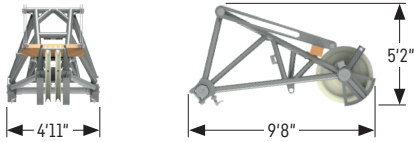
Boom section 20 ft (2220.24)

Weight incl. pendant straps	lbs	3,704
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Boom head 23 ft (2220.24)

Weight incl. pendant straps and 200 t roller set	lbs	10,154
Weight incl. pendant straps and standard roller set for lifting equipment	lbs	10,269
Weight incl. pendant straps and standard roller set for grab	lbs	10,379
Weight incl. pendant straps and standard roller set for dragline bucket	lbs	10,587

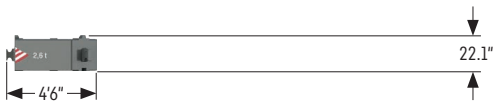


Auxiliary jib

Width	inch	5'2"
Weight	lbs	27,778

Weights can vary with the final configuration of the machine. The figures in this brochure may include options which are not within the standard scope of supply of the machine.

Counterweight



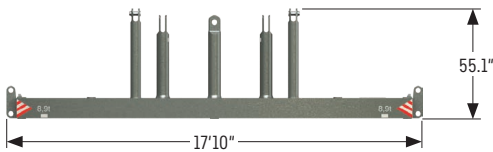
Counterweight slab (6x, option 8x)

Width	inch	33.2
Weight	lbs	5,732



Counterweight slab (2x)

Width	inch	41.3
Weight	lbs	27,117



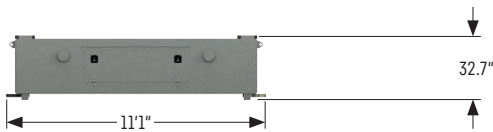
Basic counterweight slab (1x)

Width	inch	41.3
Weight	lbs	19,621



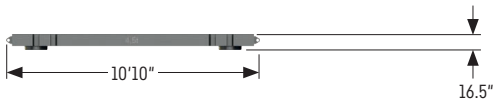
Additional counterweight (1x)

Width	inch	41.3
Weight	lbs	21,164



Additional counterweight I (2x)

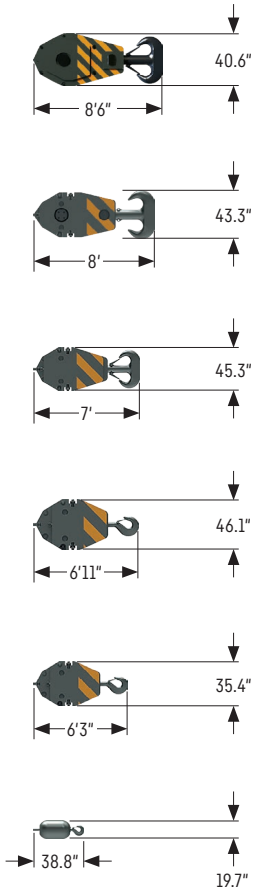
Width	inch	6.3
Weight	lbs	29,762



Additional counterweight II (2x)

Width	inch	48.0
Weight	lbs	9,921

Hooks



440,925 lbs hook block - 4 sheaves

Width	inch	21.5
Weight	lbs	5,732

352,740 lbs hook block - 3 sheaves

Width	inch	16.5
Weight	lbs	4,433

220,462 lbs hook block - 2 sheaves

Width	inch	10.6
Weight	lbs	2,646

176,370 lbs hook block - 1 sheave

Width	inch	9.6
Weight	lbs	2,646

110,231 lbs hook block - 1 sheave

Width	inch	9.1
Weight	lbs	1,653

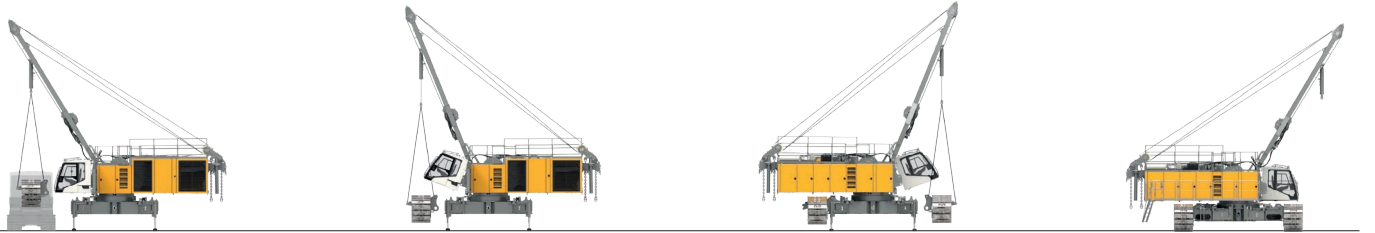
77,162 lbs single hook

Width	inch	19.7
Weight	lbs	1,764

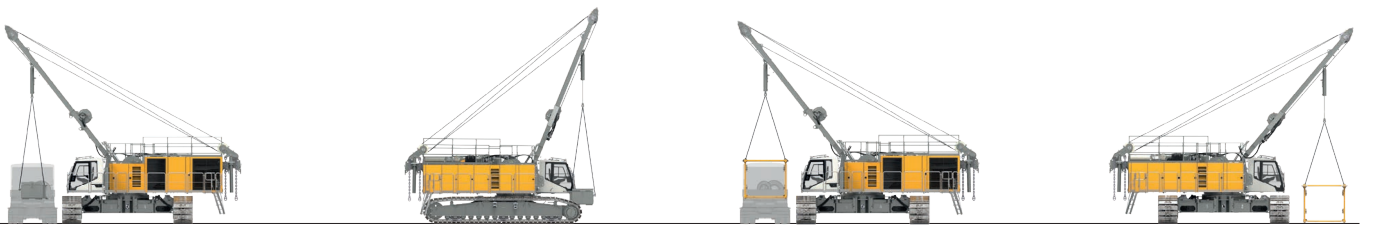
Self-assembly system



Unloading of basic machine (option)

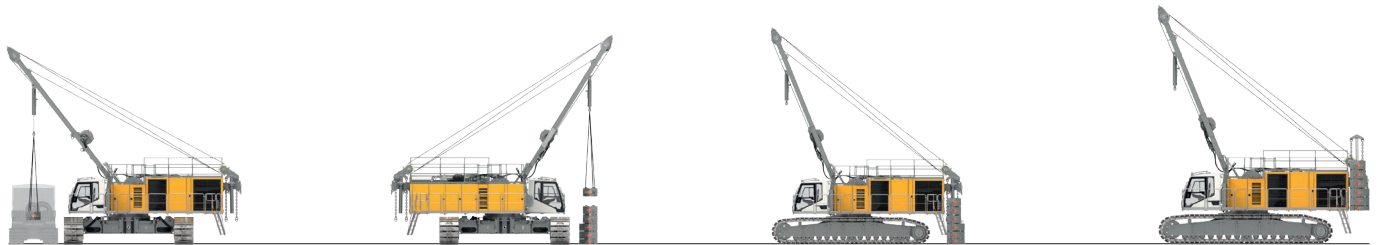


Unloading and assembly of crawlers



Unloading and assembly of carbody counterweight

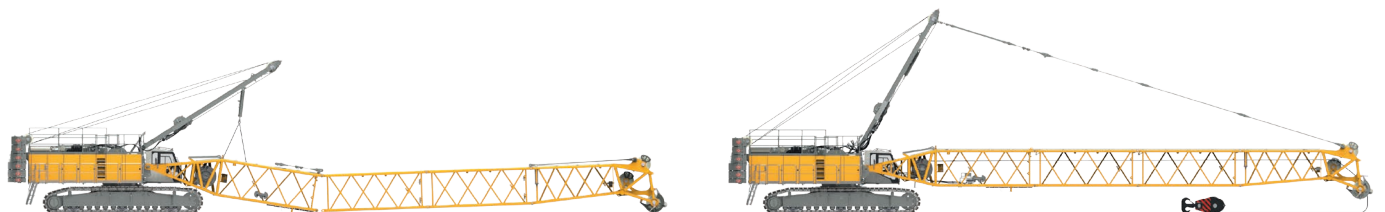
Unloading and assembly of boom



Unloading and assembly of rear counterweight



Assembly of boom foot

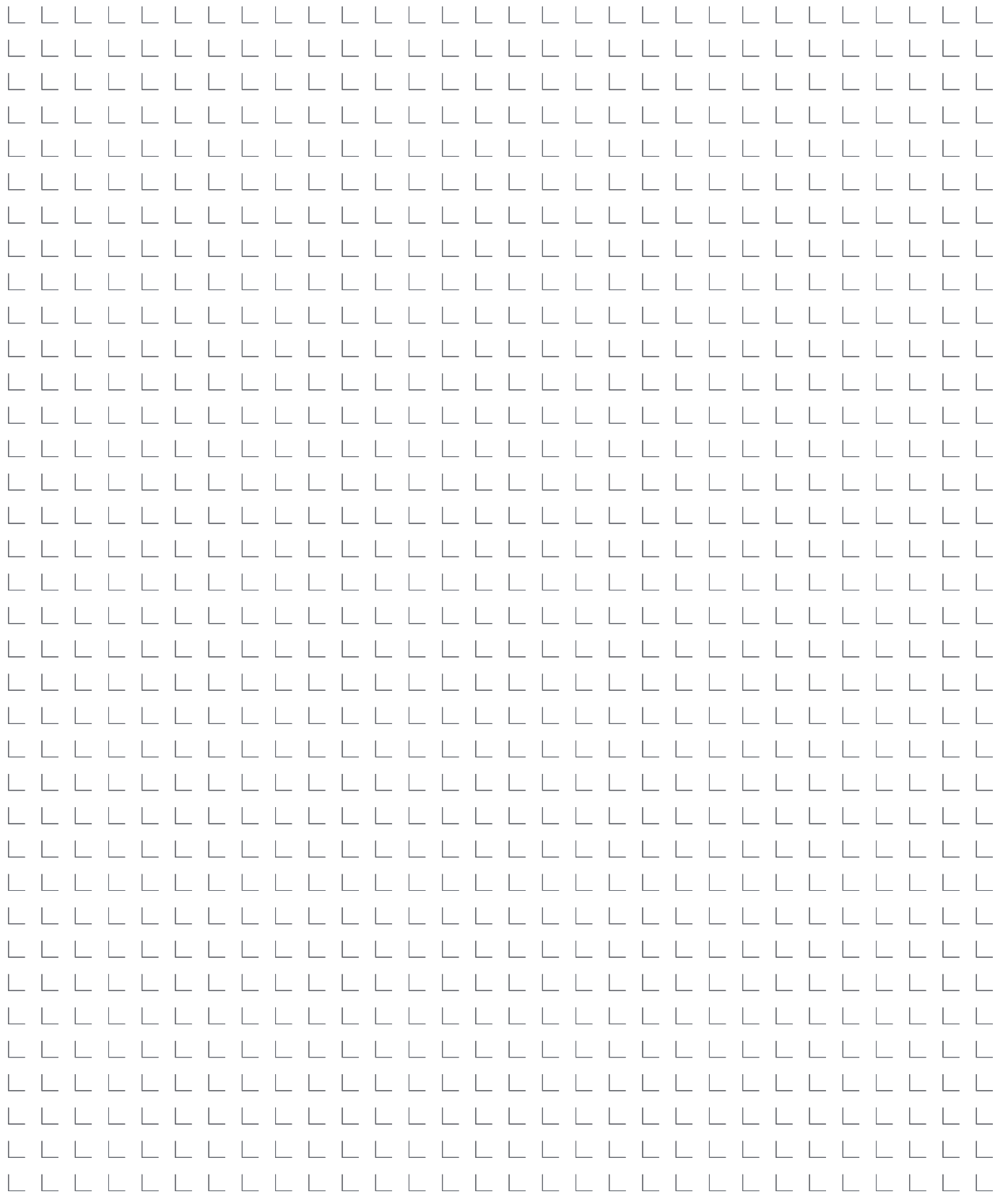


Assembly of boom

Reeving of hoist ropes

Notes

A grid of 26 rows and 26 columns of small L-shaped symbols, resembling a typewriter keyboard layout, used for taking notes.



Liebherr-Werk Nenzing GmbH · Dr. Hans Liebherr Str. 1 · 6710 Nenzing, Austria
Phone +43 50809 41-473 · crawler.crane@liebherr.com · www.liebherr.com
facebook.com/LiebherrConstruction

Liebherr USA, Co. · 7075 Bennington Street · Houston, TX 77028-5812
Phone (713) 636-4050 · crawler.cranes.usa@liebherr.com · www.liebherr.com
facebook.com/LiebherrConstruction