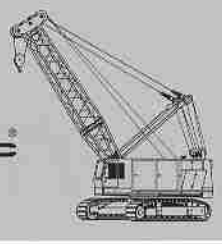
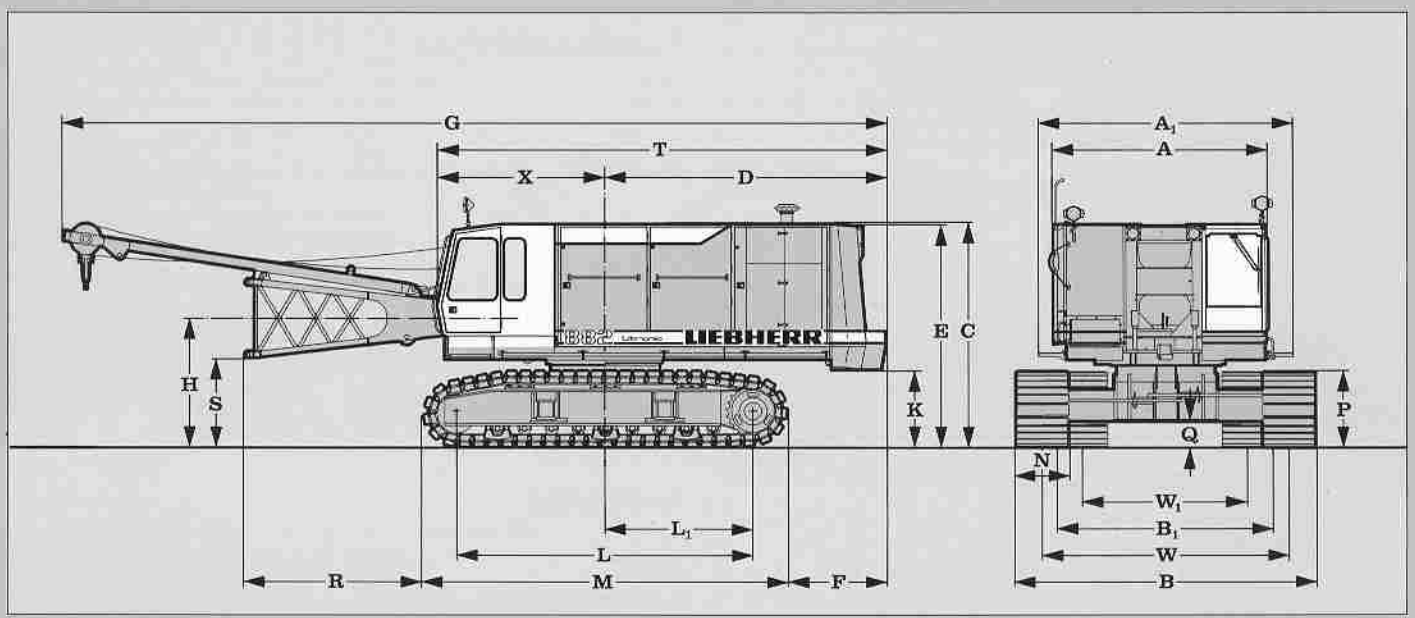
Technical Data
Hydraulic Crawler Crane HS 882 HD Litronic



Basic Machine



Dimensions

		mm
A	Width of superstructure	3300/3480
A_1	Width of superstructure with walk way	4040
C	Clearance height of basic machine	3740
D	Tail reach	5460
	Tail swing radius	5510
E	Height over counterweight	3650
F	Distance between rear end of crawler and outside of counterweight	2110
G	Overall length of superstructure with lowered A-frame	14900
H	Ground clearance of boom foot pivot	2225
K	Clearance under superstructure to ground level	1375
L	Wheel base (center idler to center tumbler)	5450
L_1	Distance from center of rotation to center of tumbler	2725
M	Length of crawlers	6700
P	Height of crawlers	1440
Q	Ground clearance of crawler	560
R	Distance of horizontal boom foot to crawler	2115
S	Ground clearance of horizontal boom foot	1410
T	Length of basic machine	8535
X	Distance from centre of rotation to end of cab	2625

N	Width of track shoes	800	900	1000
W_1	Track width retracted	2990	2990	2990
W	Track width extended	3920	3920	3920
B_1	Crawler width retracted	4000	4000	4000
B	Crawler width extended	4720	4820	4920

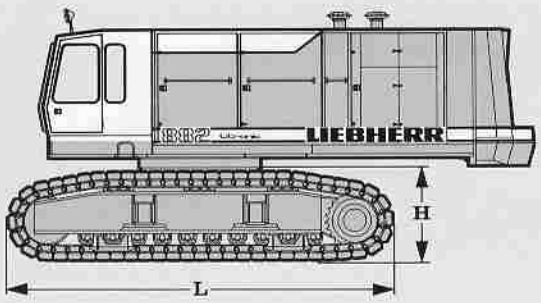
Operating Weight and Ground Pressure

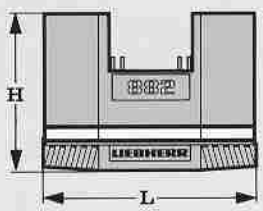
The operating weight includes the basic machine with B8 crawler tracks, 2 main winches and 11 m HD-boom, consisting of A-frame, boom foot (4 m), boom head section (6.4 m), boom head (0.6 m) and 24.1 mt basic counterweight + 8.4 mt add. counterweight.

with 800 mm flat track shoes:	107.3 mt – 1.23 kg/cm²
with 900 mm flat track shoes:	108.4 mt – 1.11 kg/cm²
with 1000 mm flat track shoes:	109.6 mt – 1.01 kg/cm²
with 800 mm 2-web shoes:	105.1 mt – 1.21 kg/cm²
with 900 mm 2-web shoes:	105.9 mt – 1.08 kg/cm²
with 1000 mm 2-web shoes:	106.8 mt – 0.98 kg/cm²

LIEBHERR

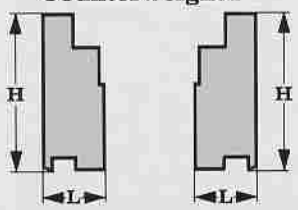
The Better Machine.



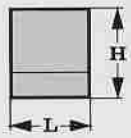


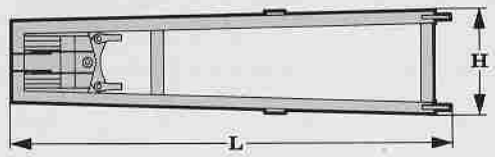
Counterweight

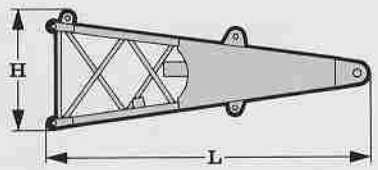
add.
Counterweight I

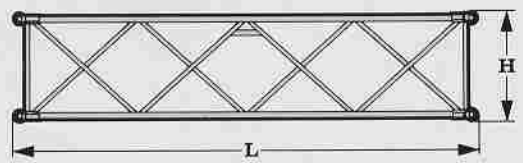


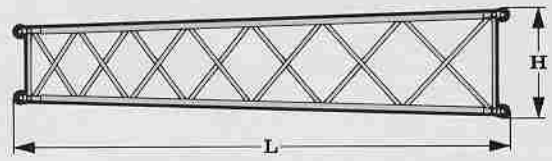
add.
Counterweight II

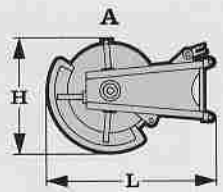


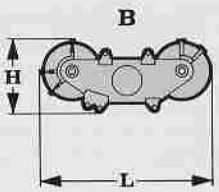












Basic Machine

with V-12 motor, HD-undercarriage, 24.1 mt counterweight and winches 2 x 30 mt.

Shoes	mm	800	900	1000
Weight	mt	92.2	93.1	93.9

Crawler Retracted

Shoes	mm	800	900	1000
Width	mm	4000	4000	4000
Weight	kg	38100	38900	39800
L = Length	mm	6700		
H = Height	mm	1500		

Counterweight

Width	mm	1090
Weight	kg	24100
L = Length	mm	3200
H = Height	mm	2200

		Add. Counter-weight I:	Add. Counter-weight II:
Width	mm	2 x 340	375
Weight	kg	2 x 2600	3200
L = Length	mm	2 x 835	1070
H = Height	mm	2 x 2150	1210

A-Frame

Width	mm	1250
Weight	kg	1750
L = Length	mm	6500
H = Height	mm	1420

Boom Foot

Width	mm	1620
Weight	kg	2350
L = Length	mm	4220
H = Height	mm	1740

Tubular Boom Extensions		3 m	6 m
Width	mm	1620	1620
Weight	kg	740	1120
L = Length	mm	3165	6165
H = Height	mm	1630	1630

HD Boom Head Section 6.4 m

Width	mm	1610
Weight	kg	1410
L = Length	mm	6565
H = Height	mm	1630

Boom Head		A	B
Width	mm	776	1060
Weight	kgs	1670	1730
L = Length	mm	2665	2820
H = Height	mm	1805	1170

Transport Dimensions and Weights

Engine

Mercedes-Benz, watercooled V-8 diesel, turbocharged with intercooler. Power rating according DIN 6271: Model OM 442 LA with 297 kW (404 HP) 1900 RPM.
Optional:
Watercooled 12-cylinder-Mercedes-Benz-V-diesel engine, type OM 444 LA. Rating per DIN 6271: 448 kW (609 HP) at 1900 RPM.
Dieseltank: 920 l continuous fuel consumption indication with emergency tank level indication at approx. 40 l.

Hydraulic System

Four main pumps are driven by a distributor gear box. The axial piston displacement pumps work in a closed circuit supplying oil only when needed. A low loss pressure cut-off takes care of the pumps and saves energy.
Winch 1 and 2: Axial piston displacement pumps (swash plate design) 565 l/min. each.
Swing gear: Axial piston displacement pump (swash plate design) 203 l/min.
Boom hoist: Axial piston displacement pump (swash plate design 203 l/min.
Max. working pressure: 340 bar
Hydraulic oil tank: 500 l capacity.
Optional:
Possibility of re-direction boom pump flow to the swing gear for higher speed.
Extended hydraulic system to drive external equipment with hydrostatic power. Oil tank of 1200 l.

Winches 1 and 2

Winch options:	20 mt	25 mt	30 mt
Line pull (nominal load):	200 kN	250 kN	300 kN
Rope diameter:	30 mm	34 mm	36 mm
Rope drum diameter:	640 mm	750 mm	800 mm
Line speed 1st layer m/min.	0 – 74	0 – 62	0 – 61
Line speed fast gear m/min.	0 – 124	0 – 115	0 – 115

Planetary gearbox in oil bath. Load support by hydraulic system. Additional security through spring loaded multi disc brake (parking brake). In the freefall mode the clutch and brake function is realized by a separate ample dimensioned multi disc working brake. The hoist and drag winches use variable oil motors controlled by high pressure. This allows the complete utilisation of the installed motorpower with partial loads through speed adaption.
Optional:
Auxiliary winch: 50 kN (5 mt)
Crane winch: 160 kN (16 mt) – with multi-disc brake but without free fall device.

Swing Drive

Single row ball bearing with external toothing for lower tooth flank pressure. Fixed axial piston oil motor, planetary gearbox, spring loaded and hydraulically released multi disc brake, swing gear pinon.
A precision swing gear allows variable speed control within 3 selectable speed ranges, swing speed 0 – 3.3 RPM; freewheel moment control of superstructure, therefore almost wearless. Moment force sustained by diesel engine.
Optional:
Second swing gear.

Boom Hoist Drive

Twin drum with internally located planetary gearbox, axial piston oil motor, hydraulically released spring-loaded multi-disc brake.
Max. line pull 2 x 70 kN (2 x 7 mt).
Rope diameter 20 mm, line speed 0 – 27 m/min.
Optional:
Pre selection switch for 2 speed ranges.

Crawler

Propulsion through axial piston motor, hydraulically released spring-loaded multi-disc brake, planetary gear box, maintenance free crawler tracks, hydraulic-type chain tensioning device, flat track- or 2-web shoes.
Driving speed 0 – 1.9 km/h.
Optional:
Variable 2 speed oil motor for higher driving speeds.

Control System

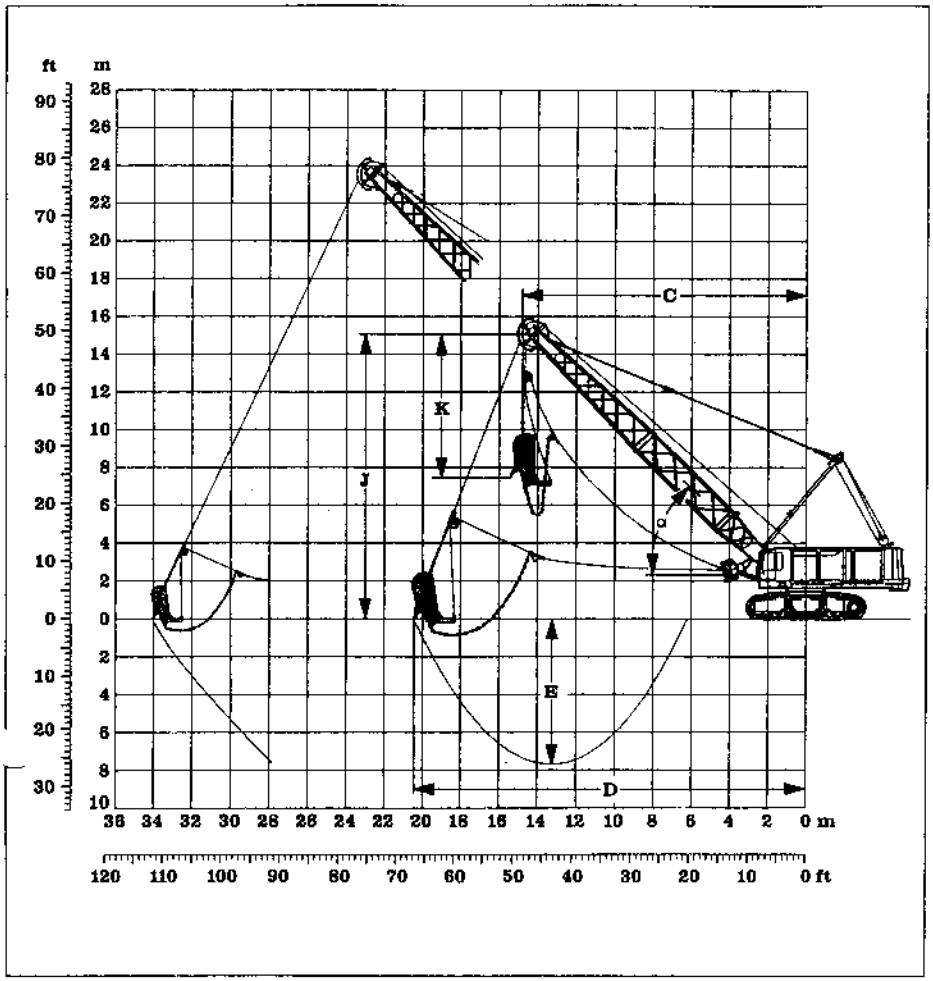
Electric control impulses are prepared for hydraulic control in the programmable electronic part. The specially treated electronic components are designed for the hard environment for this type of machine. Master control lever (cross movement) for swing and boom movements, double T-lever for winch 1 and 2 or crawlers. Electro-hydraulic continuous proportioning control for work and displacement motions.
Dragline only: Interlock control. Cinematic reversal energy for drag winch is transmitted to the hoist winch, when lifting full bucket to dump, thus saving brakes and energy.
Please ask for details of our patented automatic free fall device.

Equipment

- Tubular HD boom up to 59 m.
- Multi sheave HD boom head or dragline boom head.
- Dragline, clamshell or crane equipment.
- Attachments are possible for piling, drilling, oscillating equipment etc.
- For dragline operation a fairlead is attached to the boom foot to minimize cable wear out.

Technical Description

24.1 mt Counterweight + 5.2 mt Add. Counterweight



Scope of Delivery:

- Basic machine with corresponding track shoes
- Second swing gear with freewheel control
- Add. counterweight of 5.2 mt
- A-frame
- Boom foot
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Boom head extension 6.4 m
- Boom head
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding fair lead
- Corresponding cables
- Dragline bucket

Digging Diagram:

C = Radius / dumping radius
D = Max. digging radius = approx. C + 1/3 to 1/2 of J – K
E = Digging depth = approx. 40 % at 50 % of C
J = Height of boom head sheave center above ground level
K = Length of dragline bucket (depending on type and capacity of bucket)

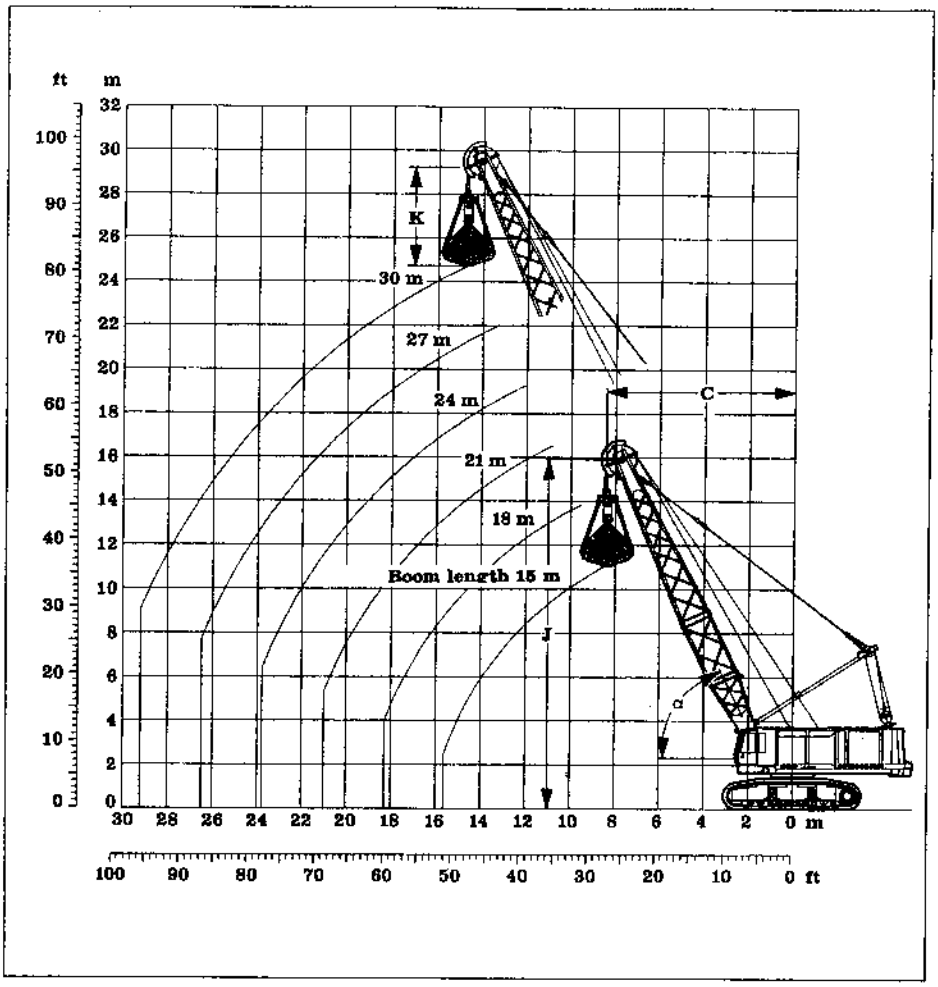
Boom length: 15 m to 30 m					Counterweight: 29.3 mt													
	15 m			18 m			21 m			24 m			27 m			30 m		
α°	C	J		C	J		C	J		C	J		C	J		C	J	
	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t
45	12.6	12.8	21.0	14.7	14.9	18.0	16.9	17.0	14.4	19.0	19.1	11.9	21.1	21.3	10.2	23.3	23.4	8.9
40	13.5	11.8	20.6	15.8	13.7	16.2	18.1	15.7	12.8	20.4	17.6	10.9	22.7	19.5	9.4	25.0	21.4	8.1
35	14.3	10.8	19.0	16.8	12.5	14.8	19.2	14.2	12.0	21.7	15.9	10.1	24.1	17.6	8.6	26.6	19.4	7.2
30	15.0	9.7	17.8	17.6	11.2	13.3	20.2	12.7	10.9	22.8	14.2	9.0	25.4	15.7	7.5	28.0	17.2	6.3
25	15.6	8.5	16.8	18.3	9.8	11.9	21.0	11.0	9.7	23.8	12.3	8.2	26.5	13.6	6.8	29.2	14.8	5.7

Content of dragline bucket.					
cu.yd.	6	5 1/2	5	4 1/2	4	3 1/2
m^3	4.6	4.2	3.8	3.4	3	2.7

Max. lifting capacities in metric tons do not exceed 75 % of tipping load.

Dragline Equipment

24.1 mt Counterweight + 5.2 mt Add. Counterweight



Scope of Delivery:

- Basic machine with corresponding track shoes
- Second swing gear with freewheel control
- Add. counterweight of 5.2 mt
- A-frame
- Boom foot
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Boom head extension 6.4 m
- Boom head
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding cables
- Clamshell
- 4-rope clamshell on request
- Load moment limiter

Digging Diagram:

C = Radius / dumping radius
J = Height of boom head sheave center above ground level
K = Length of clamshell (depending on type and capacity of bucket)

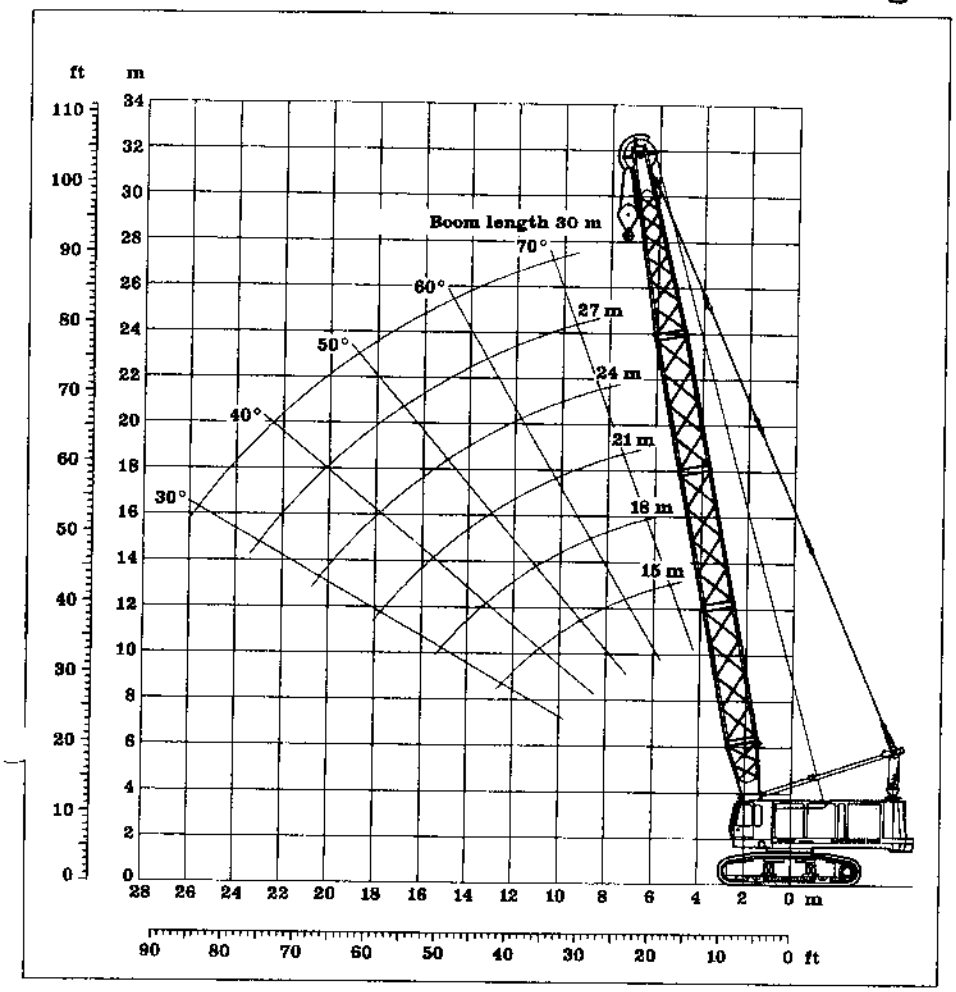
Boom length: 15 m to 30 m — **Counterweight: 29.3 mt**

α°	15 m			18 m			21 m			24 m			27 m			30 m		
	C	J		C	J		C	J		C	J		C	J		C	J	
	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t
65	8.4	15.7	31.8	9.6	18.5	30.9	10.9	21.2	25.6	12.2	23.9	22.4	13.4	26.6	19.6	14.7	29.3	17.0
60	9.5	15.1	31.8	11.0	17.7	26.2	12.5	20.3	22.0	14.0	22.9	18.7	15.5	25.5	15.9	17.0	28.1	13.5
55	10.6	14.4	27.6	12.4	16.9	22.5	14.1	19.4	18.8	15.8	21.8	15.7	17.5	24.3	13.1	19.2	26.7	11.4
50	11.7	13.6	24.4	13.6	15.9	19.8	15.5	18.2	16.4	17.4	20.5	13.5	19.4	22.8	11.6	21.3	25.1	10.1
45	12.6	12.8	21.9	14.7	14.9	17.7	16.9	17.0	14.4	19.0	19.1	12.0	21.1	21.3	10.4	23.2	23.4	8.9
40	13.5	11.8	20.0	15.8	13.7	16.1	18.1	15.7	12.9	20.4	17.6	11.1	22.7	19.5	9.4	25.0	21.4	7.9
35	14.3	10.8	18.5	16.8	12.5	14.8	19.2	14.2	12.1	21.7	15.9	10.1	24.1	17.6	8.5	26.6	19.4	7.1
30	15.0	9.7	17.4	17.6	11.2	13.3	20.2	12.7	10.9	22.8	14.2	9.0	25.4	15.7	7.6	28.0	17.2	6.3
25	15.6	8.5	16.4	18.3	9.8	11.9	21.0	11.0	9.7	23.8	12.3	8.0	26.5	13.6	6.7	29.2	14.8	5.5

Max. lifting capacities in metric tons do not exceed 66.7 % of the tipping load.
Max. lifting capacities: 21.0 mt with 300 kN winch (30 mt)
18.5 mt with 250 kN winch (25 mt)
14.5 mt with 200 kN winch (20 mt)

Clamshell Equipment

24.1 mt Counterweight + 5.2 mt Add. Counterweight



Scope of Delivery:

- Basic machine with corresponding track shoes
- Add. counterweight of 5.2 mt
- A-frame
- Boom foot
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Boom head extension 6.4 m
- Boom head
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding hook block
- Load moment limiter

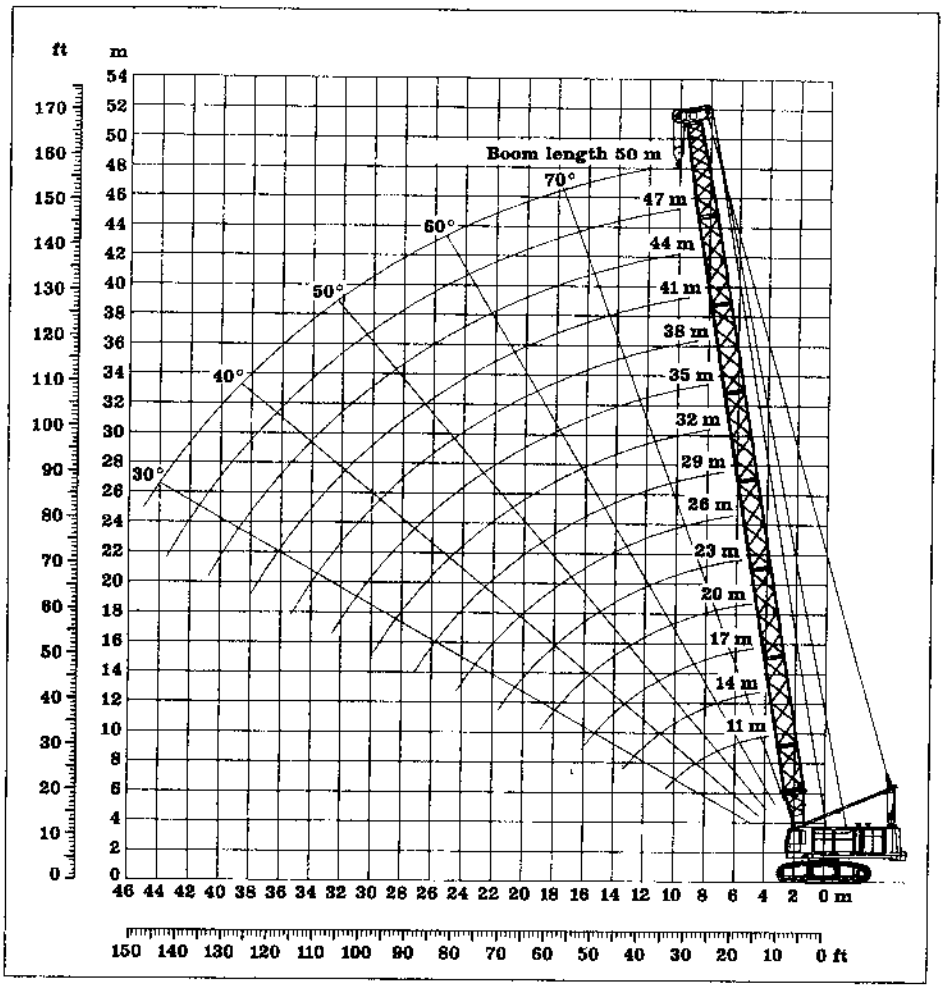
Remarks:

1. The lifting capacities with dragline boom head are valid for wide track.
2. The lifting capacities stated do not exceed 75 % of the tipping load.
3. The lifting capacities are indicated in metric tons with unlimited swing (360 degrees).
4. The weight of the lifting device must be deducted to arrive at the net load lifting capacity.
5. Working radii are measured from center of swing.
6. Machine standing on firm, level and uniform ground.

Radius m	Boom length m 15	18	21	24	27	30
5	51.0					
5.5	49.8	44.9				
6	48.6	43.9	39.9			
6.5	47.4	42.9	39.1	35.7		
7	46.3	42.0	38.2	35.0	32.2	
7.5	45.3	41.1	37.5	34.3	31.6	27.7
8	44.2	40.2	36.7	33.7	29.4	27.2
9	38.9	38.5	35.3	32.4	28.3	26.3
10	33.6	33.5	33.3	29.6	27.4	25.4
11	29.6	29.4	29.3	28.5	26.4	24.5
12	26.3	26.2	26.0	25.8	25.6	23.8
13	23.7	23.6	23.4	23.2	23.0	22.7
14	21.5	21.4	21.2	21.0	20.8	20.5
15	19.6	19.5	19.3	19.1	18.9	18.7
16		17.9	17.7	17.5	17.3	17.1
17		16.5	16.3	16.1	15.9	15.7
18		15.2	15.1	14.9	14.7	14.5
19			14.0	13.8	13.6	13.4
20			13.1	12.9	12.7	12.5
22				11.3	11.1	10.8
24				9.9	9.7	9.5
26					8.6	8.4
28						7.5
30						6.6

Lifting Capacity with Dragline Boom Head

24.1 mt Counterweight + 5.2 mt Add. Counterweight



Scope of Delivery:

- Basic machine with corresponding track shoes
- Add. counterweight of 5.2 mt
- A-frame
- Boom foot
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Boom head extension 6.4 m
- Boom head
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding hook block
- Load moment limiter

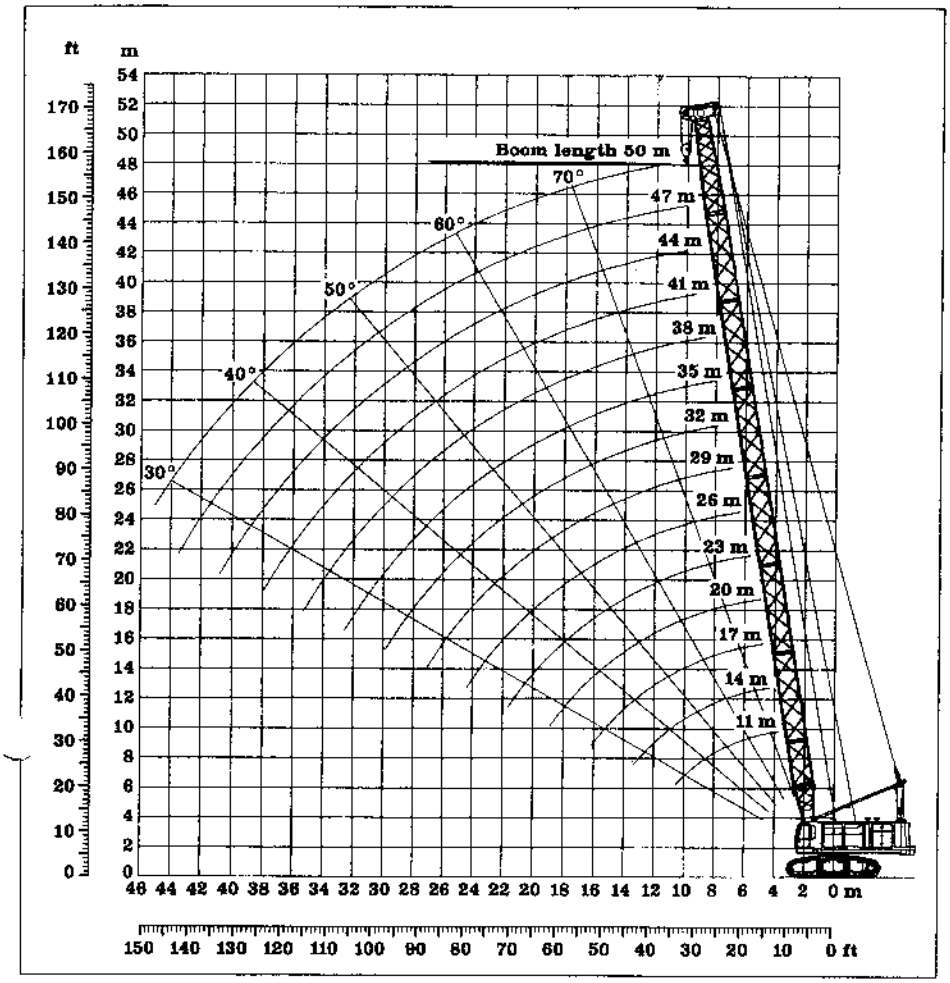
Remarks:

1. The lifting capacities with multi sheave boom head are valid for wide track.
2. The lifting capacities stated do not exceed 75 % of the tipping load.
3. The lifting capacities are indicated in metric tons with unlimited swing (360 degrees).
4. The weight of the lifting device must be deducted to arrive at the net load lifting capacity.
5. Working radii are measured from center of swing.
6. Machine standing on firm, level and uniform ground.
7. Max. loads without windload.

Radius m	Boom length m 11	14	17	20	23	26	29	32	35	38	41	44	47	50
4	110.0													
4.5	99.0	87.9												
5	89.4	84.8	79.3											
5.5	81.2	81.2	76.7	72.0										
6	70.6	70.6	70.5	69.8	65.7									
6.5	62.4	62.4	62.3	62.2	62.0	58.5								
7	55.8	55.8	55.7	55.6	55.4	55.3	53.6							
7.5	50.5	50.5	50.4	50.2	50.1	49.9	49.7	49.6						
8	46.0	46.0	45.9	45.7	45.6	45.4	45.2	45.1	44.9	43.3				
9	39.0	39.0	38.9	38.7	38.6	38.4	38.2	38.0	37.8	37.6	37.4	36.9		
10	33.7	33.7	33.6	33.5	33.3	33.1	32.9	32.7	32.5	32.3	32.1	31.9	31.7	29.7
11	29.6	29.6	29.5	29.4	29.2	29.0	28.8	28.6	28.4	28.2	28.0	27.8	27.6	27.3
12	26.2	26.3	26.3	26.1	25.9	25.7	25.5	25.3	25.1	24.9	24.7	24.5	24.3	24.0
13		23.6	23.6	23.4	23.3	23.1	22.9	22.7	22.4	22.2	22.0	21.8	21.6	21.3
14		21.4	21.3	21.2	21.0	20.8	20.6	20.4	20.2	20.0	19.8	19.5	19.3	19.1
15		19.4	19.4	19.3	19.1	18.9	18.7	18.5	18.3	18.1	17.9	17.6	17.4	17.2
16			17.8	17.7	17.5	17.3	17.1	16.9	16.7	16.5	16.2	16.0	15.8	15.6
17			16.4	16.3	16.1	15.9	15.7	15.5	15.3	15.1	14.8	14.6	14.4	14.1
18			15.1	15.0	14.9	14.7	14.5	14.3	14.1	13.8	13.6	13.4	13.1	12.9
19				13.9	13.8	13.6	13.4	13.2	13.0	12.8	12.5	12.3	12.1	11.8
20				13.0	12.8	12.6	12.4	12.2	12.0	11.8	11.6	11.3	11.1	10.9
22					11.2	11.0	10.8	10.6	10.4	10.1	9.9	9.7	9.4	9.2
24					9.8	9.6	9.5	9.2	9.0	8.8	8.6	8.3	8.1	7.8
26						8.5	8.3	8.1	7.9	7.7	7.4	7.2	6.9	6.6
28							7.4	7.2	7.0	6.7	6.5	6.2	5.9	5.6
30							6.5	6.3	6.1	5.9	5.6	5.3	5.0	4.7
32								5.6	5.3	5.1	4.8	4.6	4.3	4.0
34									4.7	4.4	4.2	3.9	3.6	3.3
36										3.8	3.6	3.3	3.0	2.7
38											3.0	2.8	2.5	2.2
40											2.5	2.3	2.0	1.7
42												1.9	1.6	1.3
44													1.2	0.9

Lifting Capacity with Multi Sheave HD Boom Head

24.1 mt Counterweight + 8.4 mt Add. Counterweight



Scope of Delivery:

- Basic machine with corresponding track shoes
- Add. counterweight of 8.4 mt
- A-frame
- Boom foot
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Boom head extension 6.4 m
- Boom head
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding hook block
- Load moment limiter

Remarks:

1. The lifting capacities with multi sheave boom head are valid for wide track.
2. The lifting capacities stated do not exceed 75 % of the tipping load.
3. The lifting capacities are indicated in metric tons with unlimited swing (360 degrees).
4. The weight of the lifting device must be deducted to arrive at the net load lifting capacity.
5. Working radii are measured from center of swing.
6. Machine standing on firm, level and uniform ground.
7. Max. loads without windload.

Radius m	Boom length m 11	14	17	20	23	26	29	32	35	38	41	44	47	50	53	56	59
4	120,0																
4,5	113,8	106,8															
5	100,6	100,6	96,4														
5,5	85,6	85,6	85,6	85,5													
6	74,5	74,5	74,4	74,3	74,1												
6,5	65,8	65,8	65,7	65,7	65,4	65,3											
7	58,9	58,9	58,8	58,7	58,5	58,3	58,2										
7,5	53,2	53,2	53,2	53,0	52,8	52,7	52,5	52,3									
8	48,5	48,5	48,4	48,3	48,1	48,0	47,8	47,6	47,4	47,2							
9	41,2	41,1	41,0	40,9	40,7	40,5	40,4	40,2	40,0	39,8	39,6	36,4					
10	35,6	35,6	35,5	35,4	35,2	35,0	34,8	34,6	34,4	34,2	34,0	33,8	29,5	28,0			
11	31,2	31,3	31,2	31,1	30,9	30,7	30,5	30,3	30,1	29,8	29,6	29,4	27,5	26,5	21,2		
12	27,7	27,8	27,7	27,6	27,4	27,2	27,0	26,8	26,6	26,4	26,1	25,9	25,7	24,0	19,9	17,0	15,9
13		24,9	24,9	24,7	24,6	24,4	24,2	23,9	23,7	23,5	23,3	23,0	22,8	21,1	18,5	16,0	14,8
14		22,5	22,5	22,4	22,2	22,0	21,8	21,6	21,4	21,1	20,9	20,7	20,4	19,8	17,0	15,5	13,8
15		20,5	20,5	20,4	20,2	20,0	19,8	19,6	19,4	19,1	18,9	18,7	18,4	18,2	16,2	14,5	13,1
16			18,8	18,7	18,5	18,3	18,1	17,9	17,6	17,4	17,2	16,9	16,7	16,5	15,5	13,5	12,1
17			17,3	17,2	17,0	16,8	16,6	16,4	16,1	15,9	15,7	15,4	15,2	15,0	14,5	12,7	11,4
18			15,9	15,9	15,7	15,5	15,3	15,1	14,8	14,6	14,4	14,1	13,9	13,7	13,4	12,0	10,7
19				14,7	14,5	14,4	14,1	13,9	13,7	13,5	13,2	13,0	12,7	12,5	12,3	11,5	10,1
20				13,6	13,5	13,3	13,1	12,9	12,7	12,4	12,2	12,0	11,7	11,5	11,2	11,0	9,6
22					11,8	11,6	11,4	11,2	10,9	10,7	10,5	10,2	10,0	9,7	9,5	9,2	8,5
24					10,3	10,2	10,0	9,7	9,5	9,3	9,0	8,8	8,6	8,3	8,0	7,7	7,4
26						8,9	8,8	8,6	8,3	8,1	7,9	7,6	7,3	7,0	6,7	6,4	6,1
28							7,7	7,5	7,3	7,1	6,8	6,5	6,2	5,9	5,6	5,3	5,0
30							6,8	6,6	6,4	6,2	5,9	5,6	5,3	5,0	4,7	4,4	4,1
32								5,9	5,6	5,4	5,1	4,8	4,5	4,2	3,9	3,6	3,3
34									4,9	4,6	4,4	4,1	3,8	3,5	3,2	2,9	2,6
36										4,0	3,7	3,5	3,2	2,9	2,6	2,3	2,0
38											3,2	2,9	2,6	2,3	2,0	1,7	1,4
40											2,7	2,4	2,1	1,8	1,5	1,2	0,9
42												2,0	1,7	1,4	1,1	0,8	0,5
44													1,3	1,0	0,7	0,4	0,1

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with compliments: