

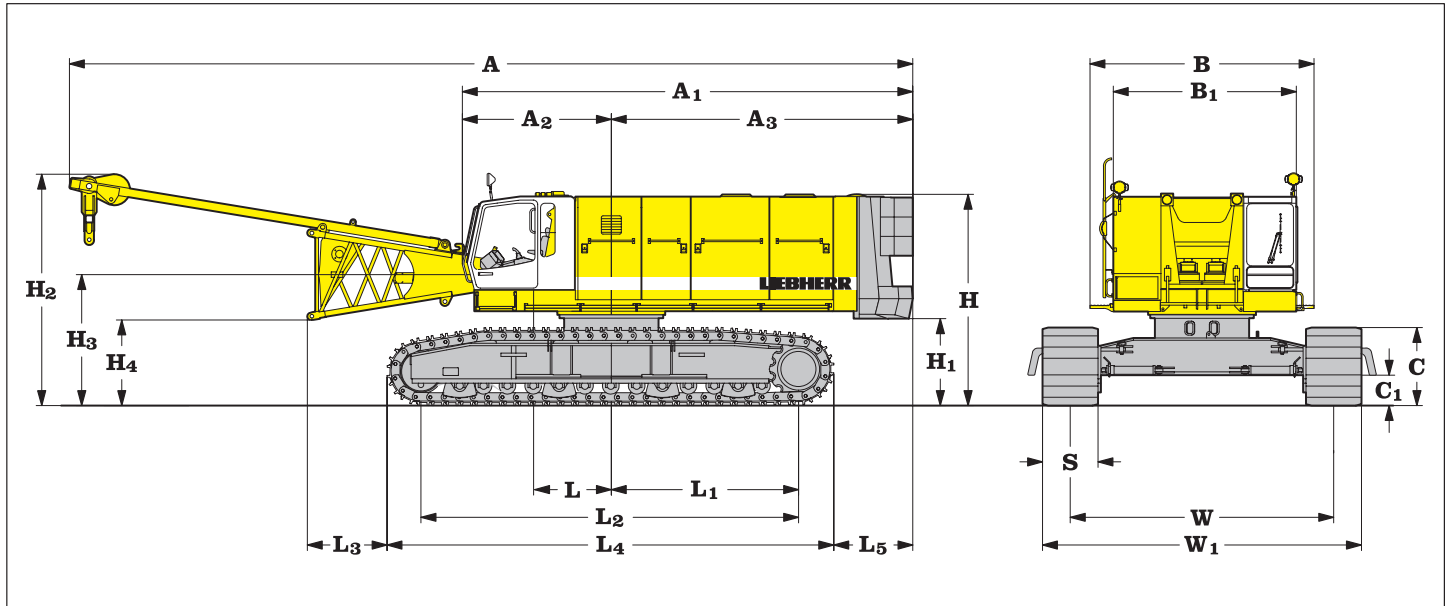
# Technical Data

## Hydraulic crawler crane

# HS 883 HD

Litronic®  
Complies with ANSI B 30.5

### Basic machine with undercarriage

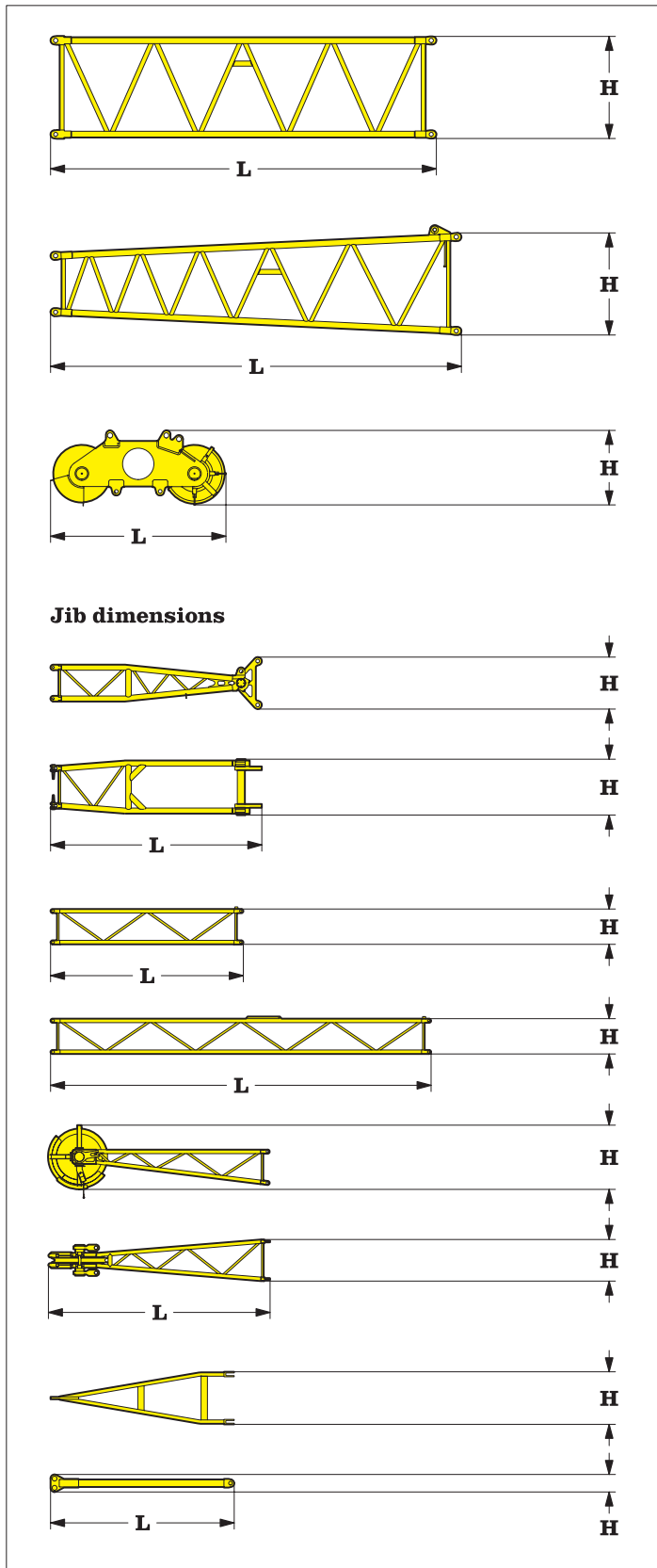


### Dimensions

<b>A</b> Overall length of superstructure with lowered A-frame	50' 2"	<b>B</b> Width of superstructure with walkway	13' 3"
<b>A<sub>1</sub></b> Length of superstructure	26' 8"	<b>B<sub>1</sub></b> Width of superstructure	11' 0"
<b>A<sub>2</sub></b> Distance from center of rotation to end of cab	9' 0"	<b>C</b> Height of crawlers	4' 8"
<b>A<sub>3</sub></b> Tail swing radius	18' 1"	<b>C<sub>1</sub></b> Ground clearance of crawlers	22"
<b>H</b> Height of basic machine	12' 6"	<b>S</b> Track shoes	39"
<b>H<sub>1</sub></b> Ground clearance of superstructure	5' 2"	<b>W</b> Track width of undercarriage	15' 7"
<b>H<sub>2</sub></b> Height over lowered A-frame	13' 9"	<b>W<sub>1</sub></b> Width of undercarriage	18' 10"
<b>H<sub>3</sub></b> Ground clearance of boom foot pivot	7' 9"		
<b>H<sub>4</sub></b> Ground clearance of horizontal boom foot	5' 1"		
<b>L</b> Center of rotation - boom foot pivot	4' 7"	<b>Operating weight and ground pressure</b>	
<b>L<sub>1</sub></b> Center of rotation - center of tumbler	11' 1"	The operating weight includes the basic unit with B7 crawler tracks, 2 main winches 35,300 lbs and 36' boom, consisting of A-frame, 18' boom foot, 18' boom head, 53,100 lbs basic counterweight, 34,000 lbs add. counterweight and 15,400 lbs carbody counterweight.	
<b>L<sub>2</sub></b> Wheel base (center idler to center tumbler)	22' 2"	31" double grouser track shoe	182,900 lbs -14.2 lbs/sq in
<b>L<sub>3</sub></b> Distance from edge of horizontal boom foot to crawler	4' 11"		
<b>L<sub>4</sub></b> Length of crawlers	26' 3"		
<b>L<sub>5</sub></b> Distance between rear end of crawler and outside of counterweight	4' 8"		

# LIEBHERR

The Better Machine.



### Tubular

#### boom extension

	10'	20'	30'	40'
L Length	10' 5"	20' 3"	30' 1"	39' 11"
H Height	5' 4"	5' 4"	5' 4"	5' 4"
Width	5' 5"	5' 5"	5' 5"	5' 5"
Weight in lbs*	1,700	2,700	3,700	4,700

#### Boom head section

L Length	21' 7"
H Height	5' 4"
Width	5' 5"
Weight in lbs*	3,600

#### Boom head

L Length	9' 3"
H Height	4' 0"
Width	3' 6"
Weight in lbs	4,000

#### Jib foot

L Length	10' 0"
H Height	23"
W Width	34"
Weight in lbs	827

#### Tubular jib extension

	10'	20'
L Length	10' 0"	20' 0"
H Height	22"	22"
W Width	27"	27"
Weight in lbs*	352	595

#### Jib head

L Length	11' 7"
H Height	3' 4"
W Width	26"
Weight in lbs*	794

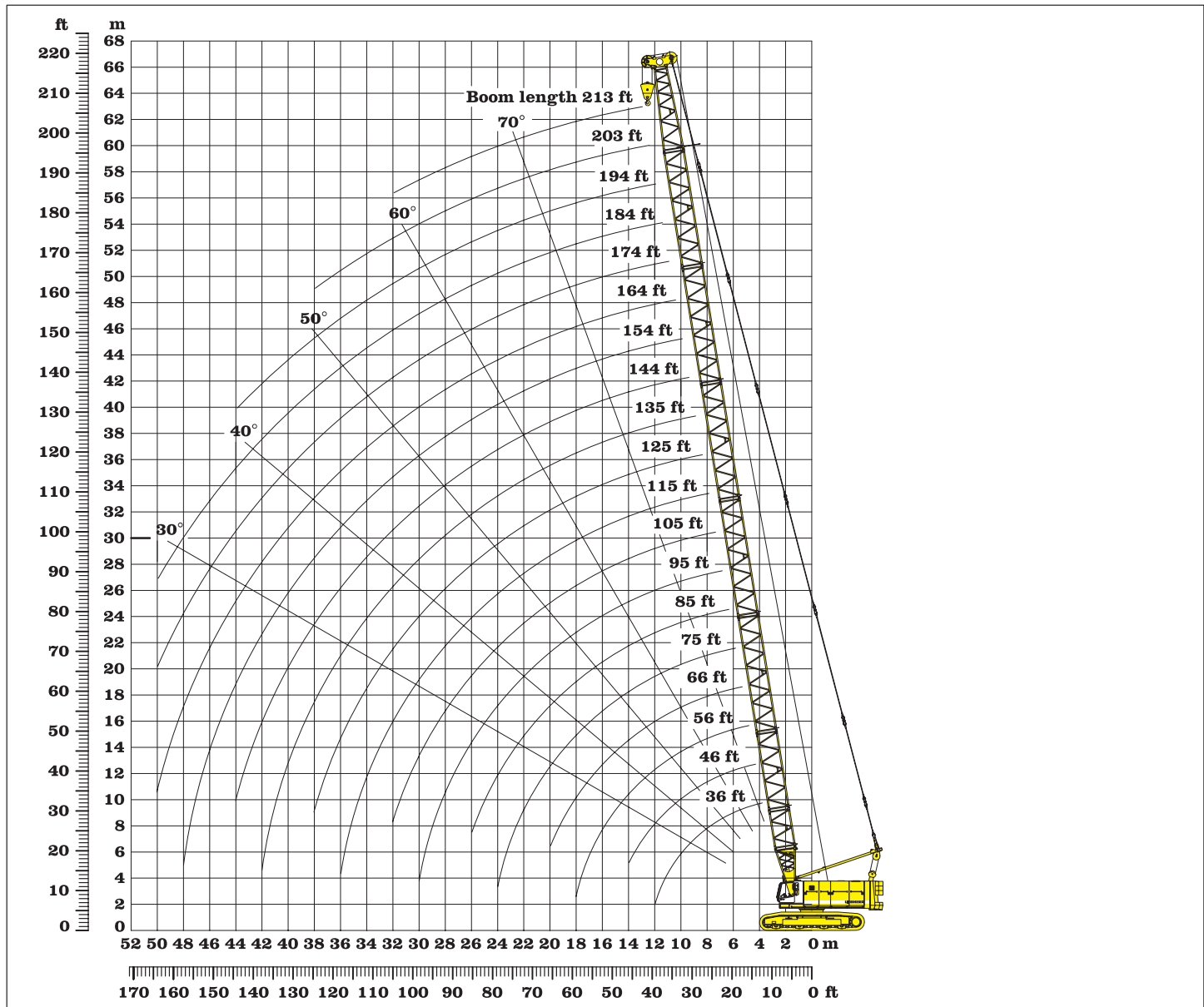
#### A-frame

L Length	10' 0"
H Height	11"
W Width	35"
Weight in lbs	618

\*) including boom pendants

# Transport dimensions and weights

## 87,100 lbs counterweight + 15,400 lbs carbody counterweight



### The following equipment is required:

- Basic machine with corresponding track shoes
- Add. counterweight 43,900 lbs
- Carbody counterweight 15,400 lbs
- A-frame
- Boom foot 13ft (4m)
- Boom extension 10ft tubular steel
- Boom extension 20ft tubular steel
- Boom extension 30ft tubular steel
- Boom extension 40ft tubular steel
- Boom head section 21ft
- Boom head 2ft with interchangeable pulleys
- Pendants according to boom length
- Main winches according to specification
- Hoisting limit switch
- Load moment limitation
- Corresponding hook block optional

### Remarks:

1. The lifting capacities are for track extended.
2. The lifting capacities stated do not exceed 75 % of the tipping load.
3. The lifting capacities are indicated in lbs with unlimited swing (360 degrees).
4. The weight of the lifting device must be deducted to arrive at the net lifting capacity.
5. Working radii are measured from center of rotation.
6. Crane standing on firm, level ground.
7. Indicated values on load chart are affected by off-lead operation, wind speeds, load under swing and stop/go movements.

# Crane configuration

Capacities in 1000 lbs for boom lengths from 36 ft to 213 ft:										87,100 lbs counterweight and 15,400 lbs carbody counterweight									
Boom length	36 ft	46 ft	56 ft	66 ft	75 ft	85 ft	95 ft	105 ft	115 ft	125 ft	135 ft	144 ft	154 ft	164 ft	174 ft	184 ft	194 ft	203 ft	213 ft
Radius in lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
14.4	300.0																		
15.0	286.4	276.7	251.5																
20.0	212.0	211.9	208.0	198.0	188.8	180.5													
25.0	160.5	161.0	159.3	152.9	147.1	141.6	136.4	131.4	126.7	120.6									
30.0	122.1	122.6	122.8	122.7	119.9	116.0	112.2	108.5	105.1	101.8	98.6	95.5	88.9						
35.0	97.9	98.5	98.6	98.6	98.5	97.8	94.8	92.0	89.3	86.7	84.1	81.7	79.3	76.3	74.7	65.7	60.2		
40.0	80.9	81.8	82.0	81.9	81.8	81.7	81.4	79.5	77.3	75.2	73.0	70.9	68.9	67.0	65.1	63.2	56.9	51.7	46.2
45.0		69.5	69.8	69.8	69.7	69.5	69.2	69.0	67.9	66.0	64.2	62.4	60.7	59.0	57.3	55.7	53.4	50.3	44.4
50.0			60.5	60.5	60.4	60.2	60.0	59.7	59.4	58.6	57.0	55.4	53.9	52.4	50.9	49.5	48.0	46.7	42.6
55.0			53.1	53.2	53.1	52.9	52.7	52.4	52.1	51.8	51.1	49.7	48.3	46.9	45.6	44.3	43.0	41.7	40.4
60.0				47.3	47.2	47.0	46.8	46.5	46.2	45.9	45.5	44.8	43.5	42.3	41.0	39.8	38.6	37.4	36.3
65.0				42.3	42.3	42.1	41.9	41.6	41.3	41.0	40.6	40.3	39.4	38.3	37.1	36.0	34.9	33.8	32.7
70.0					38.2	38.0	37.8	37.5	37.2	36.9	36.5	36.2	35.8	34.8	33.7	32.7	31.6	30.6	29.5
75.0						34.5	34.3	34.0	33.7	33.4	33.0	32.7	32.3	31.8	30.7	29.7	28.7	27.8	26.7
80.0						31.5	31.3	31.0	30.7	30.4	30.0	29.7	29.3	29.0	28.1	27.1	26.2	25.2	24.3
85.0						28.8	28.6	28.4	28.1	27.8	27.4	27.1	26.7	26.3	25.8	24.8	23.9	23.0	22.1
90.0							25.8	26.1	25.8	25.5	25.1	24.8	24.4	24.0	23.6	22.8	21.9	21.0	20.1
95.0								24.0	23.8	23.4	23.1	22.7	22.4	22.0	21.6	20.9	20.0	19.2	18.3
100.0								22.2	21.9	21.6	21.2	20.9	20.5	20.2	19.8	19.2	18.4	17.5	16.7
105.0									20.3	19.9	19.6	19.3	18.9	18.5	18.1	17.6	16.8	16.0	15.2
110.0									18.8	18.5	18.1	17.8	17.4	17.0	16.6	16.2	15.4	14.6	13.8
115.0										17.1	16.8	16.4	16.1	15.7	15.3	14.9	14.2	13.4	12.6
120.0										15.8	15.5	15.2	14.9	14.5	14.1	13.7	13.0	12.2	11.4
125.0										14.7	14.4	14.1	13.7	13.4	13.0	12.6	11.9	11.1	10.3
130.0											13.3	13.0	12.7	12.3	11.9	11.5	10.9	10.1	9.3
135.0												12.1	11.8	11.4	11.0	10.6	9.9	9.2	8.4
140.0													10.9	10.5	10.1	9.7	9.0	8.3	7.6
145.0														10.0	9.7	9.3	8.9	8.2	7.5
150.0															9.2	8.9	8.5	8.1	7.5
155.0																8.2	7.8	7.4	6.7
160.0																	7.1	6.8	6.1
165.0																		6.1	5.4
170.0																		5.5	4.8
175.0																			4.3
180.0																			3.7
185.0																			3.2
190.0																			2.7
195.0																			1.5
200.0																			1.1

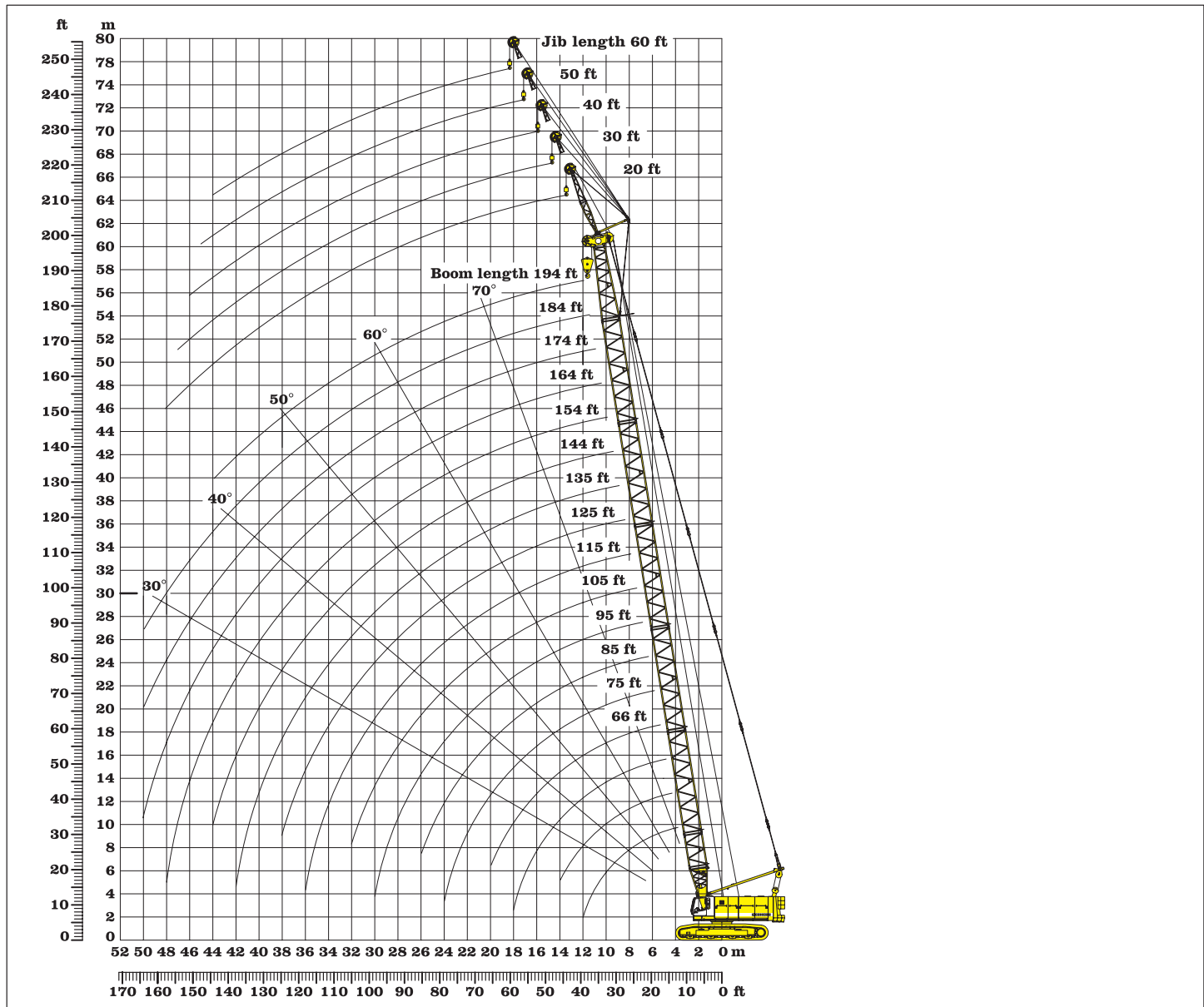
The parts of line required to lift the loads of the above chart is shown on a decal in the operator's cab.

Optimal boom configuration for boom lengths between 36 ft to 213 ft:																				
	Length	Amount of boom extensions																		
Boom foot	13 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boom extension	10 ft		1				1				1				1				1	
Boom extension	20 ft			1				1				1				1			1	
Boom extension	30 ft				1				1				1				1			
Boom extension	40 ft				1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	
Boom head section	21 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boom head	2 ft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boom length in (ft)		36	46	56	66	75	85	95	105	115	125	135	144	154	164	174	184	194	203	213

Above lift chart is for reference only. For actual lift duty please refer to lift chart in operator's cab or manual.

# Load diagram for crane configuration

## 87,100 lbs counterweight + 15,400 lbs carbody counterweight



### The following equipment is required:

- Basic machine with corresponding track shoes
- Main boom
- Jib A-frame
- Pendants according to jib length
- Jib foot 10 ft
- Jib extension 10 ft tubular steel
- Jib extension 20 ft tubular steel
- Jib head section 10 ft
- Corresponding hook block optional

### Remarks:

1. Same remarks apply as for main boom.
2. The jib can be attached to main boom from 36 ft to 194 ft.
3. Rated load on jib is only applicable with no load on main boom.

# Crane configuration - fixed jib 15° main boom 66 ft to 194 ft



# Jib length 60 ft

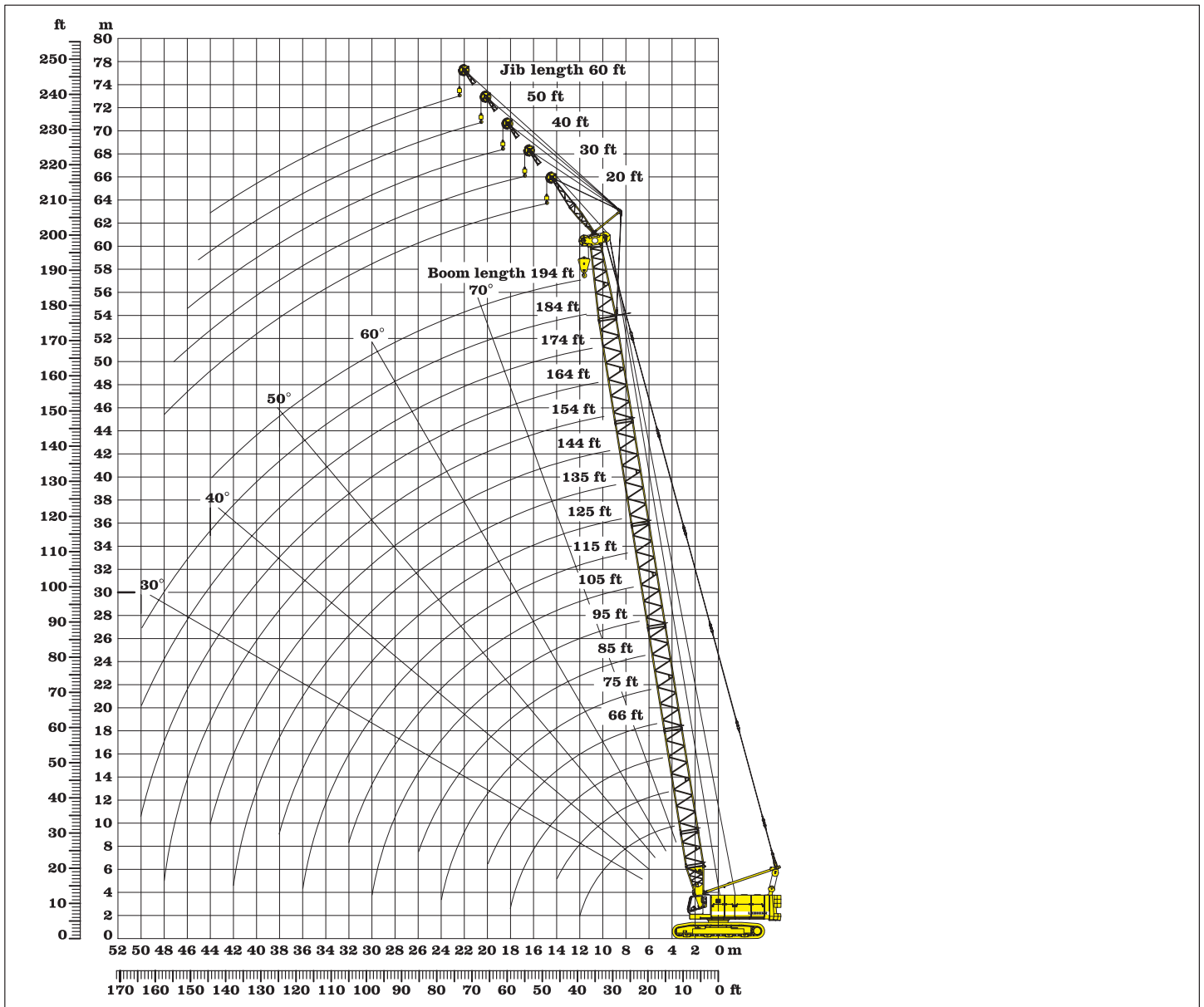
Capacity in 1000 lbs for jib length 60 ft																		
Radius in ft	Boom length in ft																	
	66	75	85	95	105	115	125	135	144	154	164	174	184	194				
50.0	17.4	17.5																
55.0	16.6	16.9	17.0	17.1	16.9	16.4												
60.0	15.9	16.3	16.5	16.6	16.5	16.1	16.2	15.2	14.6									
65.0	15.2	15.6	15.9	16.1	16.0	15.8	16.0	15.0	14.5	13.8	12.7	11.6	10.9					
70.0	14.5	15.0	15.4	15.6	15.6	15.5	15.7	14.8	14.4	13.8	12.7	11.6	10.8	9.8				
75.0	13.8	14.4	14.8	15.1	15.1	15.1	15.3	14.7	14.2	13.7	12.6	11.6	10.7	9.6				
80.0	13.2	13.8	14.2	14.6	14.7	14.8	15.0	14.5	14.0	13.6	12.6	11.5	10.5	9.5				
85.0	12.5	13.2	13.7	14.1	14.2	14.5	14.7	14.3	13.9	13.4	12.4	11.4	10.4	9.4				
90.0	11.9	12.6	13.2	13.6	13.8	14.2	14.3	14.2	13.7	13.2	12.2	11.3	10.2	9.3				
95.0	11.3	12.0	12.7	13.1	13.3	13.8	14.0	14.0	13.6	13.1	12.0	11.2	10.0	9.1				
100.0	10.6	11.5	12.1	12.7	12.8	13.4	13.5	13.8	13.4	12.9	11.8	11.0	9.8	9.0				
105.0		10.9	11.6	12.2	12.3	13.0	13.1	13.4	13.2	12.7	11.6	10.9	9.6	8.9				
110.0			11.1	11.7	11.9	12.6	12.6	12.8	12.7	12.5	11.4	10.7	9.3	8.7				
115.0				11.2	11.4	12.2	12.2	12.3	12.2	12.0	11.1	10.6	9.1	8.6				
120.0				10.8	10.9	11.7	11.7	11.7	11.6	11.5	10.7	10.4	8.9	8.5				
125.0					9.9	11.3	11.2	11.2	11.1	10.9	10.2	10.0	8.7	8.4				
130.0						10.9	10.8	10.6	10.5	10.3	9.7	9.5	8.3	8.1				
135.0							10.3	10.1	9.9	9.8	9.2	9.0	7.9	7.8				
140.0								9.9	9.6	9.4	9.2	8.7	8.5	7.5	7.4			
145.0									9.0	8.8	8.7	8.2	8.0	7.2	7.0			
150.0										8.3	8.1	7.8	7.5	6.8	6.6			
155.0											7.6	7.3	7.1	6.4	6.2			
160.0												7.0	6.8	6.6	6.0	5.8		
165.0													6.3	6.1	5.6	5.4		
170.0														5.8	5.6	5.2	5.0	
175.0															5.3	5.1	4.8	4.6
180.0																4.7	4.4	4.2
185.0																	4.0	3.8
190.0																		3.5

## Load charts are calculated based on

- wide track
- 56,700 lbs basic counterweight
- 17,600 lbs carbody counterweight
- Above lift chart is for reference only

# Load diagram - fixed jib 15° main boom 66 ft to 194 ft

**87,100 lbs counterweight + 15,400 lbs carbody counterweight**



**The following equipment is required:**

- Basic machine with corresponding track shoes
- Main boom
- Jib A-frame
- Pendants according to jib length
- Jib foot 10 ft
- Jib extension 10 ft tubular steel
- Jib extension 20 ft tubular steel
- Jib head section 10 ft
- Corresponding hook block optional

**Remarks:**

1. Same remarks apply as for main boom.
2. The jib can be attached to main boom from 36 ft to 194 ft.
3. Rated load on jib is only applicable with no load on main boom.

**Crane configuration - fixed jib 30°  
main boom 66 ft to 194 ft**





# Jib length 60 ft

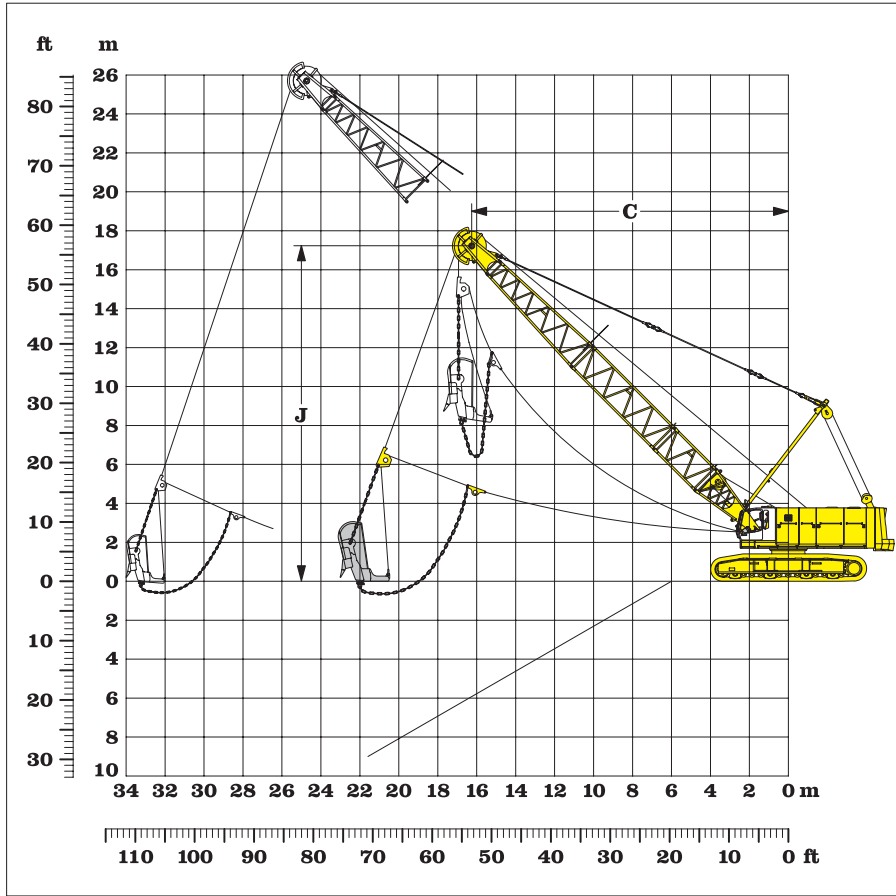
Capacity in 1000 lbs for jib length 60 ft																
Radius in ft	Boom length in ft															
	66	75	85	95	105	115	125	135	144	154	164	174	184	194		
50.0	13.6	13.6														
55.0	13.0	13.2	13.4	13.4												
60.0	12.2	12.6	12.8	12.8	12.6	12.8	12.6	12.5	12.5							
65.0	11.6	12.0	12.2	12.2	12.2	12.3	12.6	12.4	12.3	12.4	12.2	11.6				
70.0	11.0	11.5	11.7	11.7	11.9	11.9	12.3	12.2	12.2	12.2	11.7	11.3	10.4	9.4		
75.0	10.4	10.9	11.1	11.3	11.6	11.6	11.9	11.9	12.1	11.9	11.5	11.1	10.3	9.4		
80.0	9.9	10.4	10.6	10.9	11.3	11.3	11.5	11.7	12.0	11.7	11.4	11.0	10.1	9.3		
85.0	9.7	9.9	10.1	10.6	11.0	11.1	11.3	11.5	11.8	11.5	11.2	11.0	10.1	9.2		
90.0	9.4	9.7	9.8	10.2	10.6	10.8	11.0	11.3	11.6	11.3	11.1	11.0	10.0	9.0		
95.0	9.1	9.4	9.5	9.9	10.3	10.5	10.7	11.1	11.4	11.1	10.8	10.8	9.8	8.9		
100.0	8.8	9.2	9.3	9.7	10.1	10.3	10.5	10.9	11.1	11.0	10.6	10.5	9.6	8.7		
105.0	8.6	8.9	9.1	9.4	9.8	10.0	10.2	10.7	10.9	10.8	10.4	10.1	9.3	8.4		
110.0	8.3	8.7	8.9	9.2	9.5	9.8	10.0	10.5	10.7	10.7	10.1	9.7	8.9	8.2		
115.0			8.7	9.0	9.3	9.5	9.8	10.2	10.4	10.5	9.9	9.4	8.6	7.9		
120.0				8.7	9.0	9.3	9.6	9.9	10.1	10.3	9.6	9.0	8.2	7.6		
125.0				8.1	8.8	9.0	9.5	9.6	9.8	10.0	9.4	8.6	7.9	7.3		
130.0					8.5	8.8	9.3	9.4	9.4	9.6	9.0	8.3	7.5	7.1		
135.0						8.5	6.1	9.1	9.1	9.2	8.6	7.9	7.2	6.8		
140.0							8.9	8.8	8.7	8.8	8.2	7.6	6.9	6.5		
145.0							7.9	8.5	8.4	8.3	7.8	7.3	6.6	6.2		
150.0								8.3	8.1	7.9	7.5	6.9	6.3	5.9		
155.0									7.7	7.5	7.1	6.6	6.0	5.6		
160.0										7.1	6.7	6.2	5.7	5.3		
165.0										6.7	6.3	5.9	5.4	5.0		
170.0											6.0	5.6	5.1	4.7		
175.0												5.2	4.8	4.4		
180.0													4.9	4.5	4.1	
185.0														4.5	4.2	3.8
190.0															4.1	3.5
195.0																3.2

Load charts are calculated based on

- wide track
- 56,700 lbs basic counterweight
- 17,600 lbs carbody counterweight
- Above lift chart is for reference only

# Load diagram - fixed jib 30° main boom 66 ft to 194 ft

## 71,600 lbs basic counterweight



### The following equipment is required:

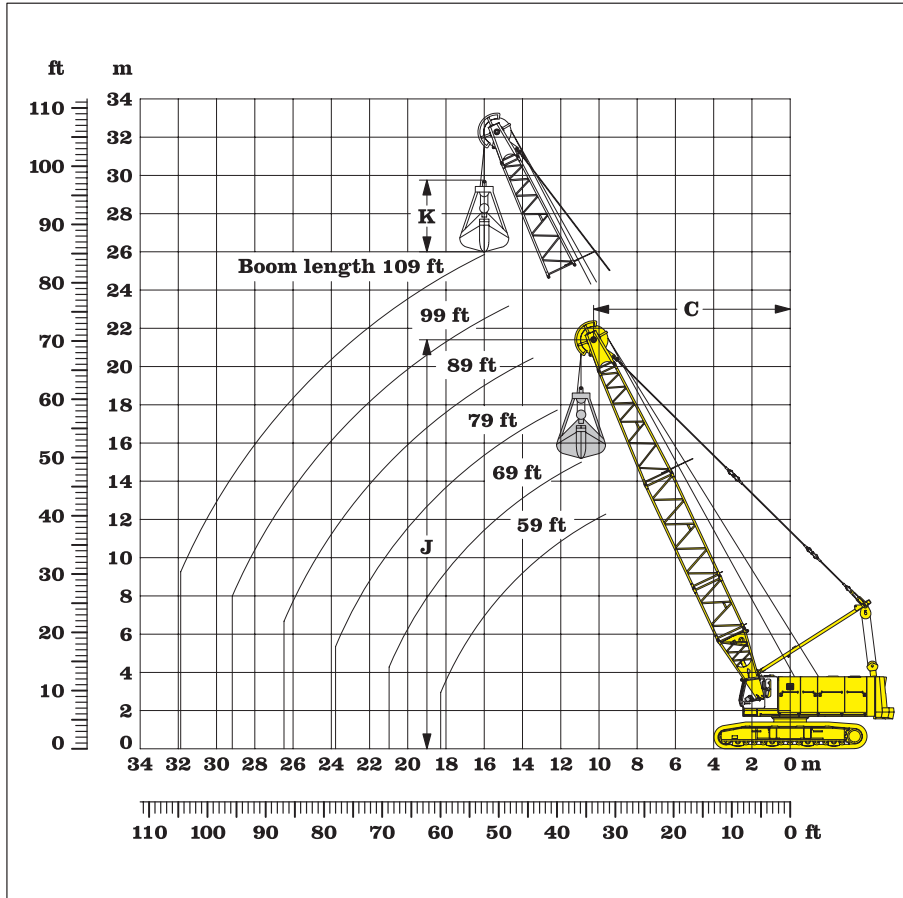
- Basic machine with corresponding track shoes
- Second swing drive with free swing
- A-frame
- Boom foot 13 ft
- Boom extension 10 ft tubular steel
- Boom extension 20 ft tubular steel
- Boom extension 30 ft tubular steel
- Boom head section 21 ft
- Boom head with interchangeable pulleys
- Pendants according to boom length
- Main winches according to specification
- Drag rope should be  $\frac{5}{64}$ " below nominal diameter
- Corresponding fair lead
- Corresponding ropes optional
- Dragline bucket optional

Capacities in 1000 lbs for boom lengths from 59 ft to 109 ft										Counterweight 71.600 lbs								
Boom angle	59ft (18m)			69ft (21m)			79ft (24m)			89ft (27m)			99ft (30m)			109ft (33m)		
	C	J	lbs	C	J	lbs	C	J	lbs	C	J	lbs	C	J	lbs	C	J	lbs
45	48.4	49.5	44.1	55.3	56.4	37.7	62.3	63.3	30.6	69.3	70.5	25.8	76.2	77.4	22.3	83.2	84.3	19.4
40	52.0	45.6	42.1	59.4	52.1	33.7	67.0	58.4	27.6	74.5	64.6	23.1	82.0	70.8	20.3	89.5	77.4	17.6
35	55.0	41.7	38.6	63.0	47.2	30.4	71.1	52.8	25.1	79.2	58.4	21.6	87.3	64.3	18.7	95.3	69.9	16.1
30	57.8	37.4	35.7	66.3	42.3	28.4	74.8	47.2	23.3	83.4	52.2	20.3	92.0	57.0	17.4	100.4	62.0	15.0
25	60.1	32.8	32.8	69.0	36.7	26.2	78.0	41.0	21.8	86.9	45.3	18.9	95.8	49.2	16.3	104.8	53.5	13.9
Content of dragline bucket																		
cu.yd.	4			4			4			4			4			4		
m <sup>3</sup>	3			3			3			3			3			3		

Capacities are based on 75 % of tipping load  
 Bucket sizes are calculated based a 44.100 lbs single line pull winches. If smaller winches are installed, bucket sizes must be deducted accordingly.

# Dragline equipment

## 71,600 lbs basic counterweight



### The following equipment is required:

- Basic machine with corresponding track shoes
- A-frame
- Boom foot 13ft
- Boom extension 10ft tubular steel
- Boom extension 20ft tubular steel
- Boom extension 30ft tubular steel
- Boom head section 21ft
- Boom head with interchangeable pulleys
- Pendants according to boom length
- Main winches according to specification
- Tagline winch
- Corresponding ropes optional
- Clamshell optional
- Hoist limit switch
- Load moment limitation
- 4-rope clamshell on request

### Working 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)

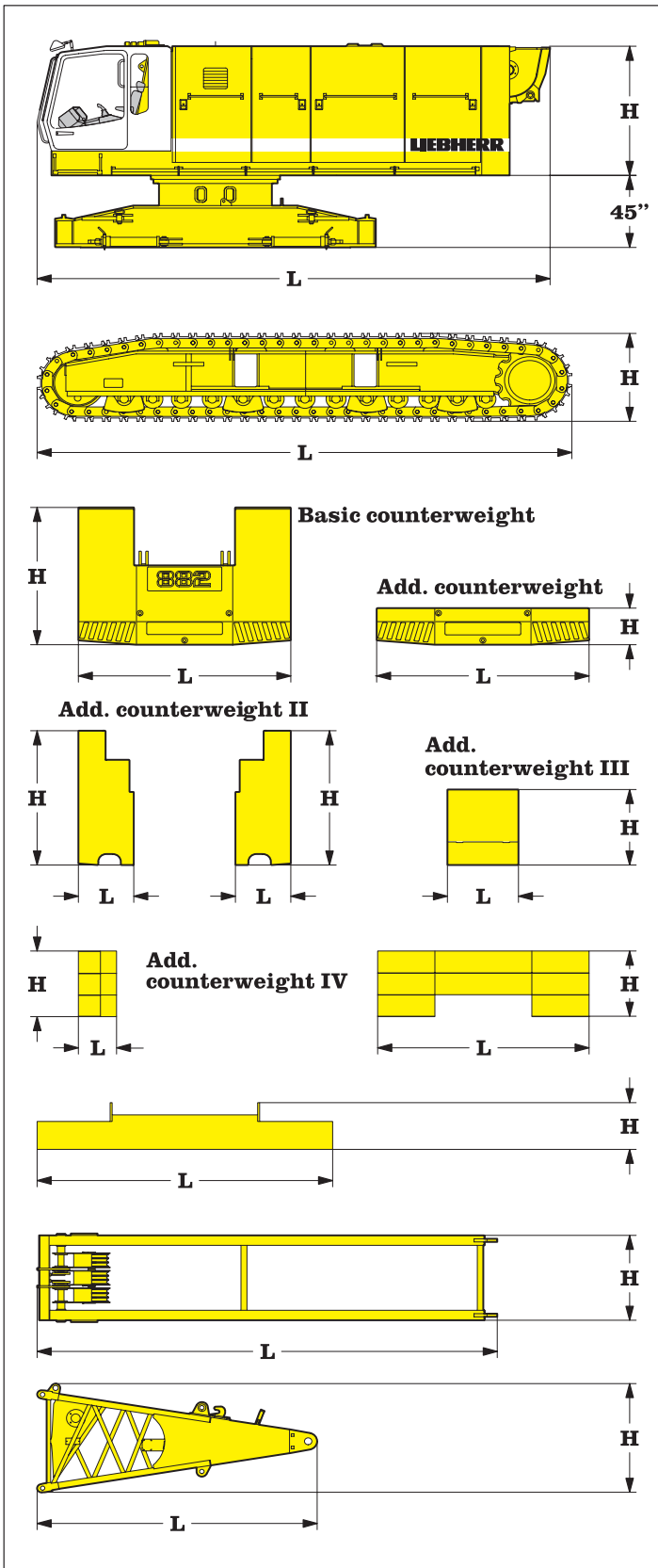
Capacities in 1000 lbs for boom lengths from 59 ft to 109 ft: 71,600 lbs													Counterweight					
Boom angle	59ft (18m)			69ft (21m)			79ft (24m)			89ft (27m)			99ft (30m)			109ft (33m)		
	C ft	J ft	lbs	C ft	J ft	lbs	C ft	J ft	lbs	C ft	J ft	lbs	C ft	J ft	lbs	C ft	J ft	lbs
65	31.6	61.4	44.1	35.8	70.2	44.1	39.9	79.0	44.1	44.1	87.9	44.1	48.2	97.1	44.1	52.4	105.9	44.1
60	36.2	58.7	44.1	41.1	67.3	44.1	46.0	75.8	44.1	50.1	84.3	41.7	55.8	82.8	35.3	60.8	101.4	44.1
55	40.5	56.1	44.1	46.2	64.3	44.1	51.8	72.2	41.2	57.4	80.4	34.4	63.0	88.2	28.9	68.7	96.5	37.4
50	44.6	52.8	44.1	50.9	60.4	43.0	57.3	67.9	35.3	63.6	75.4	29.1	69.9	83.0	25.1	76.2	90.6	22.0
45	48.4	49.5	44.1	55.3	56.4	37.7	62.3	63.3	30.6	69.3	70.5	25.8	76.2	77.4	22.5	83.2	84.3	19.6
40	51.9	45.6	42.3	59.4	52.1	33.7	67.0	58.4	27.6	74.5	64.6	23.6	82.1	70.8	20.5	89.6	77.4	17.3
35	55.0	41.7	38.6	63.0	47.2	30.4	71.1	52.8	25.6	79.2	58.4	22.0	87.3	64.3	18.9	95.3	69.9	16.1
30	57.8	37.4	35.7	66.3	42.3	28.2	74.8	47.2	24.0	83.3	52.2	20.5	91.9	57.1	17.4	100.4	62.0	14.6
25	60.2	32.8	35.0	69.0	36.7	25.8	78.0	41.0	22.5	86.9	45.3	19.2	95.8	49.2	16.1	104.7	53.5	13.2

Capacities are based on 66.7 % of tipping load.

Load diagram restricted by safety factors of standard ropes:

Winches	44,100 lbs
Rope diameter (metric only)	30 mm
Calc. breaking load	180,800 lbs
1-rope clamshell	32,600 lbs
2-rope clamshell	49,600 lbs

# Clamshell equipment



### Basic machine

with HD undercarriage, V 8 cylinder Liebherr diesel engine, 2 x 44,100 lbs winches, without basic counterweight, Add. counterweights, crawlers and carbody counterweight

Double grouser track shoe	39"
L Length	25' 4"
H Height	6' 9"
Width	11'
Weight in lbs	80,400

### Crawler

Double grouser track shoe	2x	39"
L Length	26' 3"	
H Height	4' 8"	
Width	39"	
Weight in lbs	40,800	

### Counterweight

	Basic	Add.
L Length	10' 6"	10' 6"
H Height	7' 3"	23"
Width	29"	27"
Weight in lbs	43,200	9,900

### Add. counterweight

	II	III
L Length	33"	42"
H Height	7' 1"	4' 8"
Width	14"	15"
Weight in lbs	2x 5,750	7,100

### Add. counterweight

	IV
L Length	10' 5"
H Height	41"
Width	23"
Weight in lbs	15,400

### Carbody counterweight

	2x
L Length	14' 7"
H Height	29"
Width	4"
Weight in lbs	2x 7,700

### A-frame

L Length	15' 10"
H Height	4' 0"
Width	1' 9"
Weight in lbs	1,800

### Boom foot

	Basic
L Length	19' 3"
H Height	4' 7"
Width	4' 7"
Weight in lbs	2,700

# Transport dimensions and weights



## Engine

Water cooled, V 8 cylinder Liebherr diesel engine, turbo charged with intercooler, model D 9408 TI, power rating according to DIN ISO 3046 T1 IFN: 448 hp (330 kW) at 1800 rpm.

### Option:

Water cooled, V12 cylinder Mercedes Benz diesel engine, turbo charged with intercooler, type OM 444 LA, power rating according to DIN ISO 3046 T1 IFN: 822 hp (605 kW) at 1900 rpm.

The automatic limiting load control adapts perfectly the power of the main users to the present engine speed.

The temperature and engine speed controlled cooling system saves energy and reduces the noise emission.

Fuel Tank: 243 gal capacity with continuous level indicator and reserve warning.



## Hydraulic system

The main pumps are operated by a distributor gearbox. Axial piston displacement pumps work in closed and open circuits supplying oil only when needed (flow control on demand). To minimize peak pressure an automatically working pressure cut off is integrated. This lowers pump wear.

Winch 1 and 2: Axial piston displacement pumps (swash plate design) with 132 gal/min. each.

Crawlers: Axial piston displacement pumps (swash plate design) with 2 x 105 gal/min.

Swing gear: Axial piston displacement pump (swash plate design) with 75 gal/min.

Boom hoist: Axial piston displacement pump (swash plate design) with 53 gal/min.

Max. working pressure: 5075 psi.

Hydraulic oil tank capacity: 290 gal

The cleaning of the hydraulic oil is made through electronically controlled pressure and return filters.

Contamination is signaled in the cabin.

Ready made hydraulic retrofit kits are available to customize requirements e. g. powering casing oscillators, auger drills etc.



## Winches

### Winch options:

Line pull in lbs	44,100
Rope diameter (metric only)	30 mm
Drum diameter :	24.8"
Rope speed ft/min:	0-280
Rope capacity 1st layer:	153 ft

The winches stand out for their compact design and easy assembly.

Winch drive via a planetary gearbox in oil bath. Load support by the hydraulic system; additional safety factor provided by a spring loaded, multi disc holding brake.

Clutch and braking functions on the free - fall system are provided by a compact designed, low wear and maintenance free multi disc brake. The dragline and hoist winches use pressure controlled, variable flow hydraulic motors. This system features sensors that automatically adjust oil flow to provide max. winch speed depending on load.

Working with 2 rope clamshell, the oil motors distribute the load to both winches providing speed compensation, even when working in different rope layers.

### Option:

Crane winch 35300 lbs (16 t) - without clutch, but with multi disc holding brake.



## Noise emission

Special sound proofing results in a very low noise level of 78 dB(A) at 52 ft (16 m) radius.



## Equipment

Lattice boom of tubular construction up to 213 ft (65 m), universal boom head with interchangeable rope pulleys.

Modular designed equipment for operation as crane, dragline or clamshell.

For dragline operation, a rotating fairlead is fitted into the boom foot, which minimizes rope angle to drum, which results in lower rope wear.



## Swing drive

Consists of single row ballbearing swing ring with external teeth, fixed axial piston hydraulic motor, spring loaded and hydraulically released multi-disc holding brake, planetary gearbox and pinion.

Free swing with hydraulic moment control reduces wear to a minimum, because rotation moment is sustained through the hydraulic system by the diesel engine.

Swing speed from 0 - 3.7 rpm continuously variable.



## Crawler

The track width of the undercarriage is changed hydraulically. Crawler drive through axial piston motor. Hydraulically released spring loaded multi-disc brake, maintenance free crawler tracks, hydraulic chain tensioning device.

Double grouser track shoes. Drive speed 0 - 0.8 mph.

### Option:

2 speed hydraulic motor for higher travel speed.



## Control

The control system - developed and manufactured by Liebherr - is designed to withstand temperature extremes and the many heavy-duty construction tasks for which this crane has been designed. Complete machine operating data are displayed on a high resolution monitor screen.

To ensure clarity of the information on display, different levels of data are shown in enlarged lettering and symbols. Control and monitoring of the sensors are also handled by this high technology system. Error indications are automatically displayed on the monitor.

The crane is equipped with proportional control for all movements, which can be carried out simultaneously.

A special "Interlock" control system is also optionally available. It is designed for power lifting of the dragline bucket without using the grab winch brake.

An additional option is also the so-called "Redundant" control system, which allows restricted operation of the machine in the event of a failure on the electronic base control or its sensors.

On request, Liebherr also offers special custom designed control systems for free fall winches.

The operation of the crane is done with 2 multi-directional joysticks, right for winch I and boom hoist drive, left for winch II and slewing gear.

- Options:
- Both main winches with double-T levers
  - Special demolition control system
  - MDE: Machine data recording
  - PDE: Process data recording



## Boom hoist drive

Two drum design with internally located planetary gearbox, axial piston hydraulic motor and hydraulically released spring loaded multi-disc brake.

Max. line pull 2x 15,400 lbs.

Rope diameter: 20 mm (metric only)

Max. line speed: 75 ft/min.

Two speed boom hoist option

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