

# STERLING CRANE

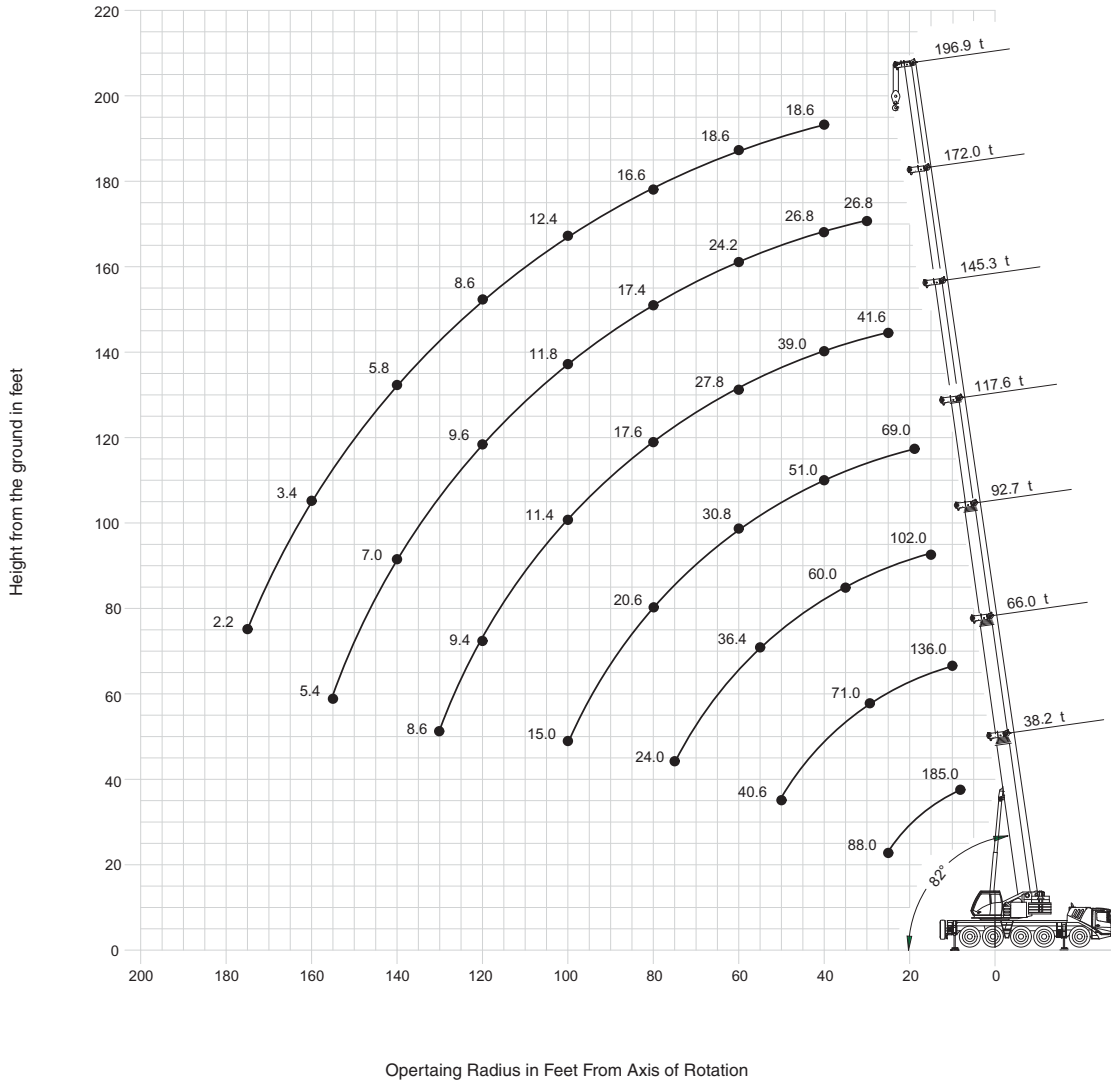


LIFTING CHARTS - All Terrain Cranes

GROVE MODEL GMK5115 - 115 TON CAPACITY

## working range

**38.2 -196.9 ft (11.7 - 60 m) main boom**



	Hook block (t)	H (ft)
	100 D	10.1
	70 S/D	9.8
	40 S/D	9.5
	20 S/D	9.2
8 H/B	7.7	

Hook heights shown in the working range diagram do not consider loaded boom deflection.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# STERLING CRANE

## load charts

38.2-196.9 ft.  
(11.7-60 m)
 25.6 x 24.6 ft.  
100%
 59,700 lb.  
(27,100 kg)
 360°

Feet	Pounds (thousands)												
	38.2	52.2	66.0	79.6	92.7	105.4	117.6	131.5	145.3	158.9	172.0	184.7	196.9
8.0	230.0*												
9.0	173.0												
10.0	158.0	146.0	136.0	130.0									
15.0	127.0	121.0	114.0	108.0	102.0								
20.0	106.0	101.0	95.0	93.0	87.0	84.0	69.0	53.0					
25.0	88.0	87.0	81.0	79.0	77.0	74.0	69.0	53.0	41.6				
30.0		75.0	71.0	69.0	68.0	65.0	64.0	52.0	41.6	33.2	26.8		
35.0		63.0	63.0	61.0	60.0	58.0	57.0	48.0	41.2	33.2	26.8	22.0	
40.0		54.0	54.0	54.0	54.0	51.0	51.0	43.6	39.0	33.0	26.8	22.0	18.6
45.0			47.0	46.0	47.0	45.0	46.0	39.4	36.0	32.6	26.8	22.0	18.6
50.0			40.6	40.2	41.2	40.0	39.6	36.4	33.2	30.4	26.8	22.0	18.6
55.0				36.4	36.4	36.8	34.8	32.6	30.6	28.0	25.6	22.0	18.6
60.0				32.8	32.2	33.2	30.8	28.8	27.8	25.6	24.2	21.8	18.6
65.0				29.0	28.2	29.6	27.4	26.4	24.6	23.8	22.6	21.0	18.6
70.0					25.6	26.4	24.6	25.0	22.0	21.8	21.0	19.8	18.2
75.0					24.0	23.6	22.2	22.8	19.6	19.4	19.4	18.8	17.4
80.0						21.0	20.6	20.8	17.6	17.4	17.4	17.6	16.6
85.0						19.0	19.8	18.8	15.8	15.6	15.8	16.2	15.8
90.0						17.0	18.2	17.0	14.2	14.6	14.2	14.6	15.0
95.0							16.4	15.2	12.8	13.4	12.8	13.2	13.6
100.0							15.0	13.8	11.4	12.4	11.8	12.0	12.4
105.0								12.6	10.8	11.8	11.2	11.2	11.4
110.0								11.4	10.2	11.2	10.6	10.6	10.4
115.0								10.2	9.8	10.8	10.2	10.0	9.4
120.0									9.4	10.2	9.6	9.6	8.6
125.0									9.0	9.2	9.2	8.8	7.8
130.0									8.6	8.4	8.4	8.0	7.2
135.0										7.8	7.6	7.2	6.4
140.0										7.2	7.0	6.6	5.8
145.0											6.6	6.0	5.2
150.0											6.0	5.4	4.6
155.0											5.4	4.8	4.0
160.0												4.4	3.4
165.0												3.8	3.0
170.0												3.4	2.6
175.0													2.2

\* over rear with special equipment





38.2-196.9 ft.  
(11.7-60 m)
 25.6 x 24.6 ft.  
100%
 50,000 lb.  
(22,700 kg)
 360°

Feet	Pounds (thousands)												
	38.2	52.2	66.0	79.6	92.7	105.4	117.6	131.5	145.3	158.9	172.0	184.7	196.9
8.0	185.0												
9.0	173.0												
10.0	158.0	146.0	136.0	130.0									
15.0	127.0	121.0	114.0	108.0	102.0								
20.0	106.0	101.0	95.0	93.0	87.0	84.0	69.0	53.0					
25.0	88.0	87.0	81.0	79.0	77.0	74.0	69.0	53.0	41.6				
30.0		73.0	71.0	69.0	68.0	65.0	64.0	52.0	41.6	33.2	26.8		
35.0		61.0	61.0	61.0	60.0	57.0	57.0	48.0	41.2	33.2	26.8	22.0	
40.0		51.0	52.0	51.0	51.0	48.0	48.0	43.6	39.0	33.0	26.8	22.0	18.6
45.0			44.0	43.6	43.6	43.8	41.2	38.6	36.0	32.6	26.8	22.0	18.6
50.0			38.0	39.6	37.8	38.2	35.6	33.4	32.2	30.4	26.6	22.0	18.6
55.0				34.0	33.0	33.6	31.2	30.2	28.0	27.6	25.6	22.0	18.6
60.0				29.6	30.0	29.8	27.6	28.2	24.6	24.2	24.2	21.8	18.6
65.0				26.0	27.4	26.6	24.4	24.0	21.8	21.4	21.4	21.0	18.6
70.0					24.2	23.6	23.0	22.6	19.2	19.0	19.0	19.4	18.2
75.0					21.6	21.0	21.8	20.2	17.0	17.2	17.0	17.4	17.4
80.0						18.6	19.8	18.4	15.2	16.2	15.8	16.2	16.0
85.0						17.8	17.8	16.6	13.8	15.4	14.6	15.0	14.4
90.0						16.8	16.0	14.8	12.8	14.6	13.4	13.6	13.0
95.0							14.4	13.2	12.0	13.4	12.6	12.8	11.8
100.0							13.2	12.0	11.4	12.4	11.8	11.8	10.6
105.0								10.8	10.8	11.6	11.2	10.8	9.6
110.0								9.6	10.2	10.6	10.4	9.8	8.6
115.0								8.6	9.8	9.6	9.6	8.8	7.8
120.0									9.4	8.8	8.6	8.0	7.0
125.0									8.8	8.2	8.0	7.4	6.2
130.0									8.0	7.8	7.2	6.6	5.6
135.0										7.2	6.6	5.8	5.0
140.0										6.6	6.0	5.2	4.4
145.0											5.4	4.6	3.8
150.0											4.8	4.0	3.2
155.0											4.2	3.6	2.8
160.0												3.0	2.2
165.0												2.6	
170.0													2.2

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# STERLING CRANE

## load charts

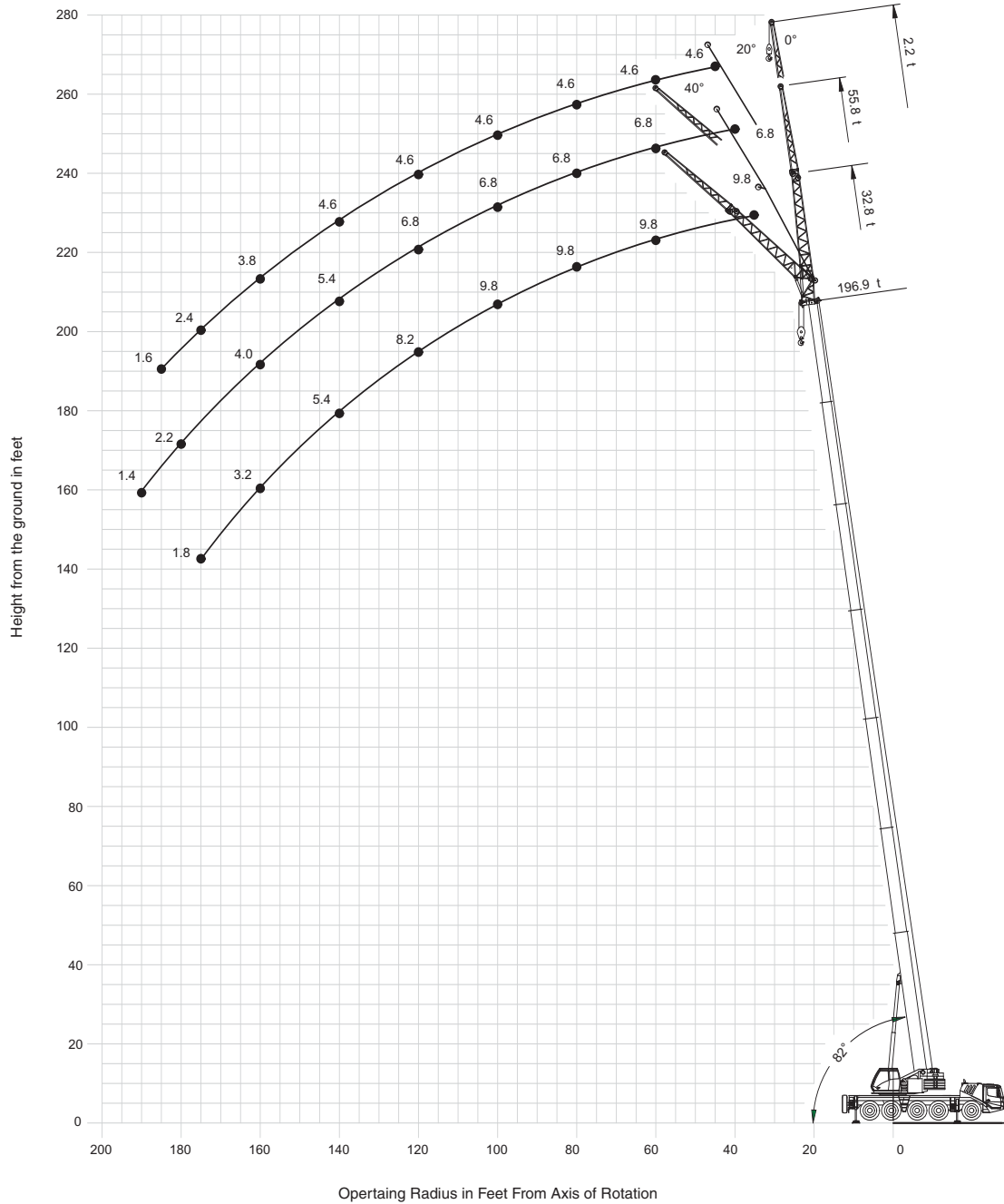
 38.2-196.9 ft.  
(11.7-60 m)
  25.6 x 24.6 ft.  
(100%)
  6,300 lb.  
(2,900 kg)
  360°

	Pounds (thousands)												
Feet	38.2	52.2	66.0	79.6	92.7	105.4	117.6	131.5	145.3	158.9	172.0	184.7	196.9
8.0	185.0												
9.0	173.0												
10.0	158.0	146.0	136.0	130.0									
15.0	127.0	121.0	114.0	108.0	102.0								
20.0	94.0	91.0	84.0	81.0	74.0	72.0	65.0	53.0					
25.0	67.0	65.0	63.0	59.0	58.0	54.0	49.0	46.0	41.6				
30.0		48.0	47.0	47.0	44.0	40.8	40.8	37.0	31.8	30.6	26.8		
35.0		38.2	38.4	37.2	35.0	35.2	32.6	29.6	29.4	28.2	24.2	22.0	
40.0		28.6	30.8	30.0	29.6	28.8	26.6	25.4	25.8	24.6	23.0	20.8	18.6
45.0			25.2	24.8	25.6	24.2	22.2	23.4	22.0	20.8	19.4	17.8	16.2
50.0			20.4	21.6	21.6	20.4	19.8	20.0	18.8	17.6	16.4	15.0	13.4
55.0				18.8	18.6	18.6	18.0	17.2	16.2	15.0	14.0	12.6	11.2
60.0				15.8	16.0	16.2	15.6	15.0	14.0	13.0	11.8	10.6	9.4
65.0				13.2	13.6	14.2	13.6	13.0	12.0	11.2	10.2	9.0	7.8
70.0					11.8	12.4	11.8	11.4	10.4	9.6	8.6	7.6	6.2
75.0					10.2	10.6	10.4	10.0	9.2	8.2	7.4	6.2	5.0
80.0						9.2	9.2	8.8	8.0	7.2	6.2	5.2	4.0
85.0						8.0	8.0	7.6	6.8	6.0	5.2	4.2	3.0
90.0						7.0	6.8	6.6	5.8	5.2	4.2	3.2	2.2
95.0							5.8	5.8	5.0	4.4	3.4	2.6	
100.0							3.4	4.8	4.2	3.6	2.8		
105.0								4.2	3.6	3.0	2.2		
110.0								3.4	3.0	2.4			
115.0									2.4				

# STERLING CRANE

## working range offsettable swingaway

**197 ft (60 m) – main boom with 32.8-55.8 ft swingaway and 1x 16 ft insert**




Hook heights shown in the working range diagram do not consider loaded boom deflection.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.


# STERLING CRANE

## load charts


hydraulic offsettable swingaway




197 ft.  
(60 m)




33-56-72 ft.  
(10-17-22 m)



59,700 lbs.  
(27,100 kg)




25.6 x 24.6 ft.  
(100%)




360°

### Intermediate Angle


Feet	Pounds (thousands)								
	197 FT + 33 FT			197 FT + 56 FT			197 FT + 72 FT		
	0°	0°-20°	20°-40°	0°	0°-20°	20°-40°	0°	0°-20°	20°-40°
30.0									
35.0	9.8								
40.0	9.8			6.8					
45.0	9.8			6.8			4.6		
50.0	9.8			6.8			4.6		
55.0	9.8	9.2		6.8			4.6		
60.0	9.8	9.2	8.8	6.8			4.6		
65.0	9.8	9.2	8.8	6.8			4.6		
70.0	9.8	9.2	8.8	6.8	6.2		4.6		
75.0	9.8	9.2	8.8	6.8	6.2		4.6	4.6	
80.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
85.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
90.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
95.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
100.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
105.0	9.6	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
110.0	9.2	9.0	8.8	6.8	6.2	5.4	4.6	4.6	4.6
115.0	8.4	8.4	8.8	6.8	6.2	5.4	4.6	4.6	4.6
120.0	7.6	7.6	8.2	6.8	6.2	5.4	4.6	4.6	4.6
125.0	6.8	6.8	7.4	6.8	6.2	5.4	4.6	4.6	4.6
130.0	6.2	6.2	6.6	6.4	6.2	5.4	4.6	4.6	4.6
135.0	5.4	5.4	6.0	5.8	5.8	5.4	4.6	4.6	4.6
140.0	4.8	4.8	5.4	5.2	5.2	5.4	4.6	4.6	4.6
145.0	4.4	4.4	4.8	4.6	4.6	5.4	4.4	4.4	4.6
150.0	3.8	3.8	4.2	4.2	4.2	5.0	3.8	3.8	4.6
155.0	3.4	3.4	3.8	3.6	3.6	4.4	3.4	3.4	4.2
160.0	2.8	2.8	3.2	3.2	3.2	4.0	3.0	3.0	3.8
165.0	2.4	2.4	2.8	2.8	2.8	3.4	2.4	2.4	3.2
170.0	2.0	2.0	2.4	2.4	2.4	3.0	2.0	2.0	2.8
175.0	1.6	1.6	1.8	2.0	2.0	2.6	1.8	1.8	2.4
180.0				1.6	1.6	2.2			2.0
185.0						1.8			1.6
190.0						1.4			




197 ft.  
(60 m)




33-56-72 ft.  
(10-17-22 m)



59,700 lbs.  
(27,100 kg)



25.6 x 24.6 ft.  
(100%)



360°

### Loads for Luffing






Feet	Pounds (thousands)					
	197 FT + 33 FT		197 FT + 56 FT		197 FT + 72 FT	
	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°
50.0						
55.0	8.8					
60.0	8.8	8.4				
65.0	8.8	8.4				
70.0	8.8	8.4	6.0			
75.0	8.8	8.4	6.0		4.4	
80.0	8.8	8.4	6.0	5.2	4.4	
85.0	8.8	8.4	6.0	5.2	4.4	4.4
90.0	8.8	8.4	6.0	5.2	4.4	4.4
95.0	8.8	8.4	6.0	5.2	4.4	4.4
100.0	8.8	8.4	6.0	5.2	4.4	4.4
105.0	8.8	8.4	6.0	5.2	4.4	4.4
110.0	8.6	8.4	6.0	5.2	4.4	4.4
115.0	8.4	8.4	6.0	5.2	4.4	4.4
120.0	7.6	8.0	6.0	5.2	4.4	4.4
125.0	6.8	7.4	5.8	5.2	4.4	4.4
130.0	6.0	6.6	5.6	5.2	4.4	4.4
135.0	5.4	6.0	5.6	5.2	4.4	4.4
140.0	4.8	5.2	5.2	5.0	4.4	4.4
145.0	4.2	4.6	4.6	5.0	4.4	4.4
150.0	3.6	4.0	4.2	5.0	3.8	4.4
155.0	3.2	3.6	3.6	4.4	3.4	4.2
160.0	2.6	3.0	3.2	3.8	3.0	3.8
165.0	2.2	2.6	2.8	3.4	2.4	3.2
170.0	1.8	2.2	2.4	3.0	2.0	2.8
175.0		1.8	2.0	2.4	1.8	2.4
180.0			1.6	2.0		2.0
185.0				1.8		1.6

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.






# STERLING CRANE

## load charts

hydraulic offsettable swingaway






**Intermediate Angle**

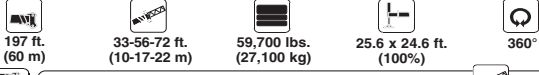
Feet	Pounds (thousands)								
	197' + 33'			197' + 56'			197' + 72'		
	0°	0°- 20°	20°- 40°	0°	0°- 20°	20°- 40°	0°	0°- 20°	20°- 40°
30.0									
35.0	9.8								
40.0	9.8			6.8					
45.0	9.8			6.8			4.6		
50.0	9.8			6.8			4.6		
55.0	9.8	9.2		6.8			4.6		
60.0	9.8	9.2	8.8	6.8			4.6		
65.0	9.8	9.2	8.8	6.8			4.6		
70.0	9.8	9.2	8.8	6.8	6.2		4.6		
75.0	9.8	9.2	8.8	6.8	6.2		4.6	4.6	
80.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
85.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
90.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
95.0	9.8	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
100.0	9.4	9.2	8.8	6.8	6.2	5.4	4.6	4.6	4.6
105.0	8.6	8.6	8.8	6.8	6.2	5.4	4.6	4.6	4.6
110.0	7.6	7.6	8.4	6.8	6.2	5.4	4.6	4.6	4.6
115.0	6.8	6.8	7.4	6.8	6.2	5.4	4.6	4.6	4.6
120.0	6.0	6.0	6.6	6.4	6.2	5.4	4.6	4.6	4.6
125.0	5.2	5.2	6.0	5.6	5.6	5.4	4.6	4.6	4.6
130.0	4.6	4.6	5.2	5.0	5.0	5.4	4.6	4.6	4.6
135.0	4.0	4.0	4.6	4.4	4.4	5.4	4.2	4.2	4.6
140.0	3.4	3.4	4.0	3.8	3.8	4.8	3.6	3.6	4.6
145.0	3.0	3.0	3.4	3.4	3.4	4.2	3.0	3.0	4.0
150.0	2.4	2.4	2.8	2.8	2.8	3.6	2.6	2.6	3.4
155.0	2.0	2.0	2.4	2.4	2.4	3.2	2.2	2.2	3.0
160.0	1.6	1.6	2.0	2.0	2.0	2.8	1.6	1.6	2.4
165.0			1.6	1.6	1.6	2.2			2.0
170.0						1.8			1.6







**Loads for Luffing**

Feet	Pounds (thousands)					
	197' + 33'		197' + 56'		197' + 72'	
	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°
50.0						
55.0	8.8					
60.0	8.8	8.4				
65.0	8.8	8.4				
70.0	8.8	8.4	6.0			
75.0	8.8	8.4	6.0		4.4	
80.0	8.8	8.4	6.0	5.2	4.4	
85.0	8.8	8.4	6.0	5.2	4.4	4.4
90.0	8.8	8.4	6.0	5.2	4.4	4.4
95.0	8.8	8.4	6.0	5.2	4.4	4.4
100.0	8.8	8.4	6.0	5.2	4.4	4.4
105.0	8.6	8.4	6.0	5.2	4.4	4.4
110.0	7.6	8.4	6.0	5.2	4.4	4.4
115.0	6.8	7.4	6.0	5.2	4.4	4.4
120.0	6.0	6.6	6.0	5.2	4.4	4.4
125.0	5.2	6.0	5.6	5.2	4.4	4.4
130.0	4.6	5.2	5.0	5.2	4.4	4.4
135.0	4.0	4.6	4.4	5.2	4.2	4.4
140.0	3.4	4.0	3.8	4.8	3.6	4.4
145.0	3.0	3.4	3.4	4.2	3.0	4.0
150.0	2.4	2.8	2.8	3.6	2.6	3.4
155.0	2.0	2.4	2.4	3.2	2.2	3.0
160.0	1.6	2.0	2.0	2.8	1.6	2.4
165.0		1.4	1.6	2.2		2.0
170.0				1.8		1.6

# STERLING CRANE

## load charts manual offset swingaway

									
Feet	Pounds (thousands)								
	197' + 33'			197' + 56'			197' + 72'		
	0°	20°	40°	0°	20°	40°	0°	20°	40°
30.0									
35.0	9.8								
40.0	9.8			6.8					
45.0	9.8			6.8			4.6		
50.0	9.8	9.8		6.8			4.6		
55.0	9.8	9.8	8.8	6.8			4.6		
60.0	9.8	9.8	8.8	6.8	6.8		4.6	4.6	
65.0	9.8	9.8	8.8	6.8	6.8		4.6	4.6	
70.0	9.8	9.8	8.8	6.8	6.8		4.6	4.6	
75.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
80.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
85.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
90.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
95.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
100.0	9.8	9.6	8.8	6.8	6.8	5.4	4.6	4.6	4.6
105.0	9.6	9.4	8.8	6.8	6.8	5.4	4.6	4.6	4.6
110.0	9.2	9.0	8.8	6.8	6.8	5.4	4.6	4.6	4.6
115.0	8.4	8.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
120.0	7.6	8.2	8.6	6.8	6.6	5.4	4.6	4.6	4.6
125.0	6.8	7.4	7.8	6.8	6.6	5.4	4.6	4.6	4.6
130.0	6.2	6.6	7.0	6.4	6.4	5.4	4.6	4.6	4.6
135.0	5.4	6.0	6.4	5.8	6.2	5.4	4.6	4.6	4.6
140.0	4.8	5.4	5.6	5.2	6.2	5.4	4.6	4.6	4.6
145.0	4.4	4.8	5.0	4.6	5.6	5.4	4.4	4.6	4.6
150.0	3.8	4.2	4.4	4.2	5.0	5.4	3.8	4.6	4.6
155.0	3.4	3.8	4.0	3.6	4.4	5.0	3.4	4.2	4.4
160.0	2.8	3.2	3.4	3.2	4.0	4.4	3.0	3.8	4.2
165.0	2.4	2.8	3.0	2.8	3.4	4.0	2.4	3.2	3.8
170.0	2.0	2.4	2.4	2.4	3.0	3.4	2.0	2.8	3.2
175.0	1.6	1.8	2.0	2.0	2.6	3.0	1.8	2.4	2.8
180.0				1.6	2.2	2.6		2.0	2.4
185.0					1.8	2.0		1.6	2.0
190.0					1.4	1.6			1.6

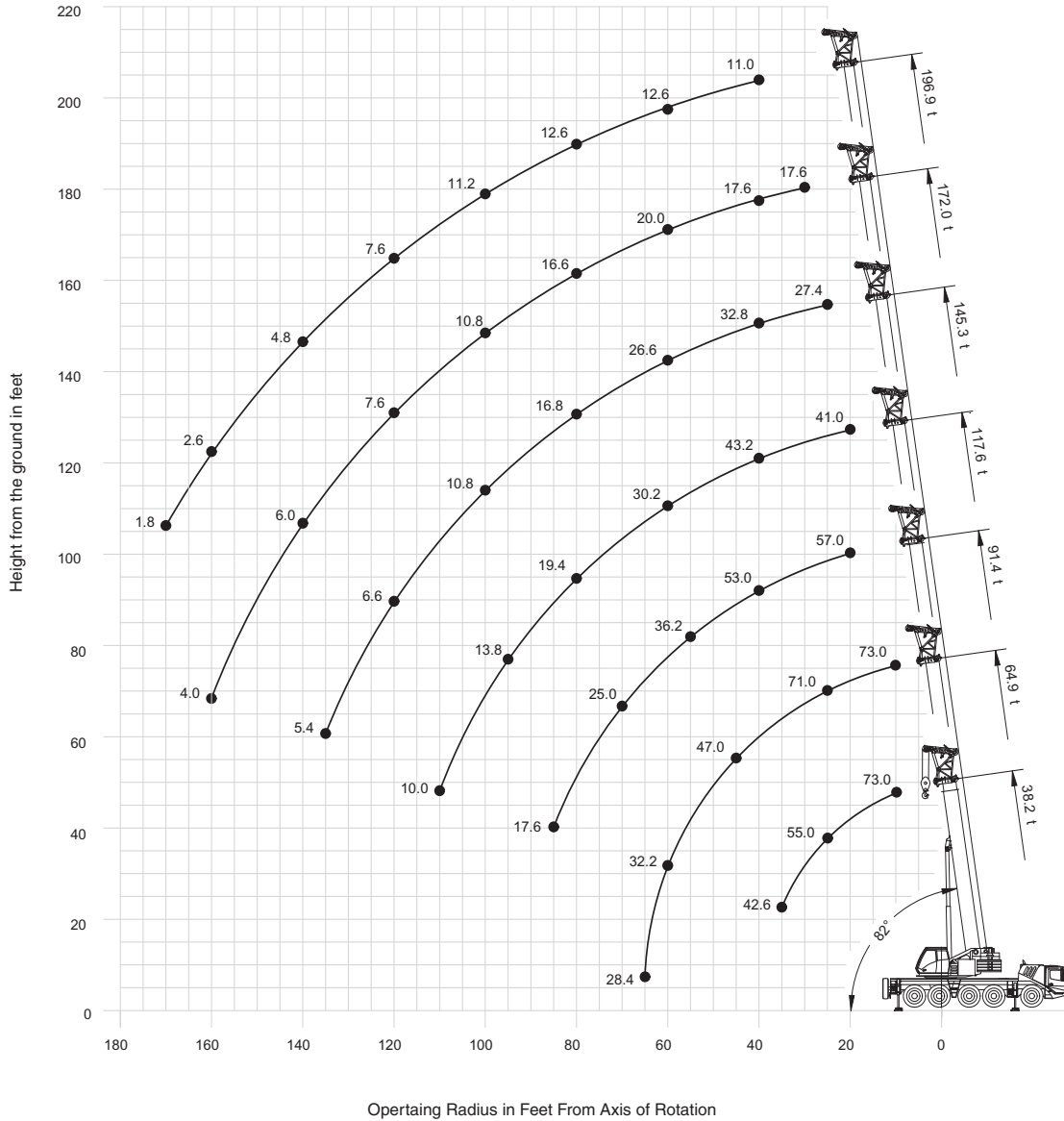
									
Feet	Pounds (thousands)								
	197' + 33'			197' + 56'			197' + 72'		
	0°	20°	40°	0°	20°	40°	0°	20°	40°
30.0									
35.0	9.8								
40.0	9.8			6.8					
45.0	9.8			6.8			4.6		
50.0	9.8	9.8		6.8			4.6		
55.0	9.8	9.8	8.8	6.8			4.6		
60.0	9.8	9.8	8.8	6.8	6.8		4.6	4.6	
65.0	9.8	9.8	8.8	6.8	6.8		4.6	4.6	
70.0	9.8	9.8	8.8	6.8	6.8		4.6	4.6	
75.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
80.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
85.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
90.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
95.0	9.8	9.8	8.8	6.8	6.8	5.4	4.6	4.6	4.6
100.0	9.4	9.6	8.8	6.8	6.8	5.4	4.6	4.6	4.6
105.0	8.6	9.2	8.8	6.8	6.8	5.4	4.6	4.6	4.6
110.0	7.6	8.4	8.8	6.8	6.8	5.4	4.6	4.6	4.6
115.0	6.8	7.4	8.0	6.8	6.8	5.4	4.6	4.6	4.6
120.0	6.0	6.6	7.2	6.4	6.6	5.4	4.6	4.6	4.6
125.0	5.2	6.0	6.4	5.6	6.6	5.4	4.6	4.6	4.6
130.0	4.6	5.2	5.6	5.0	6.0	5.4	4.6	4.6	4.6
135.0	4.0	4.6	5.0	4.4	5.4	5.4	4.2	4.6	4.6
140.0	3.4	4.0	4.2	3.8	4.8	5.4	3.6	4.6	4.6
145.0	3.0	3.4	3.6	3.4	4.2	4.8	3.0	4.0	4.6
150.0	2.4	2.8	3.2	2.8	3.6	4.2	2.6	3.4	4.2
155.0	2.0	2.4	2.6	2.4	3.2	3.8	2.2	3.0	3.6
160.0	1.6	2.0	2.2	2.0	2.8	3.2	1.6	2.4	3.0
165.0		1.6	1.6	1.6	2.2	2.8		2.0	2.6
170.0					1.8	2.2		1.6	2.0
175.0						1.8			1.6

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# STERLING CRANE

## working range heavy duty jib

**38.2 - 196.9 ft (11.7 - 60 m) main boom with 10.8 ft heavy duty jib**



Hook heights shown in the working range diagram do not consider loaded boom deflection.



# STERLING CRANE

## load charts

Integrated Heavy Duty Jib

**Intermediate Angle**

38-197 ft. (11.7-60.0 m)    10.8 ft. (3.3 m)    59,700 lbs. (27,100 kg)    25.6 x 24.6 ft. 100%    360°

Feet	Pounds (thousands)														
	38.2' + 10.8'			64.9' + 10.8'		91.4' + 10.8'		117.6' + 10.8'		145.3' + 10.8'		172.0' + 10.8'		196.9' + 10.8'	
	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°
10.0	73.0	73.0	73.0			73.0									
15.0	71.0	65.0	66.0			73.0									
20.0	60.0	57.0	59.0			70.0									
25.0	51.0	51.0	55.0			71.0	65.0	65.0							
30.0	45.0	46.0				63.0	59.0	61.0							73.0
35.0	40.2	42.6				57.0	55.0	58.0							73.0
40.0						52.0	51.0	54.0							73.0
45.0						47.0	47.0	47.0							73.0
50.0						41.2	41.2								73.0
55.0						36.2	36.2								73.0
60.0						32.2									73.0
65.0						28.4									73.0
70.0							25.0	25.0							73.0
75.0							22.2	22.2							73.0
80.0							19.8	19.8							73.0
85.0							17.6	17.6							73.0
90.0															73.0
95.0															73.0
100.0															73.0
105.0															73.0
110.0															73.0
115.0															73.0
120.0															73.0
125.0															73.0
130.0															73.0
135.0															73.0
140.0															73.0
145.0															73.0
150.0															73.0
155.0															73.0
160.0															73.0
165.0															73.0
170.0															73.0

**Loads for Luffing**

38-197 ft. (11.7-60.0 m)    10.8 ft. (3.3 m)    59,700 lbs. (27,100 kg)    25.6 x 24.6 ft. 100%    360°

Feet	Pounds (thousands)													
	38.2' + 10.8'		64.9' + 10.8'		91.4' + 10.8'		117.6' + 10.8'		145.3' + 10.8'		172.0' + 10.8'		196.9' + 10.8'	
	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°	0°- 20°	20°- 40°
10.0	46.0	46.0												
15.0	43.4	44.0												
20.0	40.6	43.0												
25.0	38.6	42.8												
30.0	37.2													
35.0	36.6													
40.0														
45.0														
50.0														
55.0														
60.0														
65.0														
70.0														
75.0														
80.0														
85.0														
90.0														
95.0														
100.0														
105.0														
110.0														
115.0														
120.0														
125.0														
130.0														
135.0														
140.0														
145.0														
150.0														
155.0														
160.0														
165.0														
170.0														

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# STERLING CRANE

## load charts Integrated Heavy Duty Jib

**Intermediate Angle**

Feet	Pounds (thousands)																				
	38.2' + 10.8'			64.9' + 10.8'			91.4' + 10.8'			117.6' + 10.8'			145.3' + 10.8'			172.0' + 10.8'			196.9' + 10.8'		
	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°	0°	< 20°	< 40°
10.0	73.0	73.0	73.0																		
15.0	71.0	65.0	66.0																		
20.0	60.0	57.0	59.0																		
25.0	51.0	51.0	55.0	73.0	71.0	70.0															
30.0	45.0	46.0		63.0	59.0	61.0	64.0	64.0	57.0				49.0	46.0	41.0						41.0
35.0	40.2	42.6		57.0	55.0	58.0	58.0	57.0	57.0				46.0	43.6	41.0						27.4
40.0				52.0	51.0	52.0	50.0	50.0	50.0				43.2	41.2	41.0	32.8	29.6	27.4			27.4
45.0				45.0	45.0	45.0	42.6	42.6	43.0				39.8	38.8	39.4	32.8	29.6	27.4	20.0	18.0	17.6
50.0				39.0	39.0		37.0	37.0	37.2				34.4	34.6	34.8	30.6	29.6	27.4	20.0	18.0	17.6
55.0				33.4	33.4		32.2	32.2	32.6				30.2	30.2	30.6	27.0	27.0	27.2	20.0	18.0	17.6
60.0				29.0			28.4	28.4	28.6				26.6	26.6	26.8	23.6	23.6	23.8	20.0	18.0	17.6
65.0				25.2			25.2	25.2	25.4				23.6	23.6	23.8	20.8	20.8	21.0	20.0	18.0	17.6
70.0							22.2	22.2					21.0	21.0	21.2	18.4	18.4	18.6	18.0	18.0	17.6
75.0							19.6	19.6					18.8	18.8	19.0	16.2	16.2	16.4	16.0	16.0	16.2
80.0							17.4	17.4					16.8	16.8	17.0	14.4	14.4	14.6	14.2	14.2	14.4
85.0							15.4	15.4					15.0	15.2	15.2	12.8	12.8	12.8	12.6	12.6	12.8
90.0													13.4	13.4		11.4	11.4	11.4	11.4	11.4	11.8
95.0													11.8	11.8		10.0	10.0	10.0	10.6	10.8	10.8
100.0													10.4	10.6		8.8	8.8	8.8	10.0	10.0	10.2
105.0													9.2	9.4		8.0	8.0	8.2	9.2	9.4	9.4
110.0													8.2	8.2		7.6	7.6	7.6	8.6	8.8	8.8
115.0																7.0	7.0		8.2	8.2	8.2
120.0																6.6	6.6		7.6	7.6	7.6
125.0																6.2	6.2		7.2	7.2	7.2
130.0																5.8	5.8		6.4	6.4	6.4
135.0																5.4	2.6		5.6	5.6	
140.0																		5.0	5.0		3.2
145.0																		4.4	4.4		2.8
150.0																		3.8	3.8		2.2
155.0																		3.4	3.4		1.8
160.0																					2.8

**Loads for Luffing**

Feet	Pounds (thousands)																				
	38.2' + 10.8'		64.9' + 10.8'		91.4' + 10.8'		117.6' + 10.8'		145.3' + 10.8'		172.0' + 10.8'		196.9' + 10.8'								
	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°	0°-20°	20°-40°							
10.0	46.0	46.0			48.0																
15.0	43.4	44.0			46.0																
20.0	40.6	43.0			45.0	45.0			46.0												
25.0	38.6	42.8			43.8	44.0			45.0	45.0											
30.0	37.2				41.8	43.2			45.0	45.0											39.0
35.0	36.6				40.2	42.8			43.8	44.0											39.0
40.0					38.8	42.6			42.4	43.4											26.0
45.0					37.8	42.8			41.0	43.0											29.6
50.0					36.0				36.0	36.4											29.6
55.0					30.6				30.8	31.0											29.0
60.0									26.6	26.6											26.0
65.0									23.2	23.2											27.0
70.0									20.2												23.6
75.0									17.8												23.8
80.0									15.8												21.0
85.0									14.0												18.0
90.0																					18.0
95.0																					18.0
100.0																					17.2
105.0																					17.2
110.0																					17.2
115.0																					17.2
120.0																					17.2
125.0																					17.2
130.0																					17.2
135.0																					17.2
140.0																					17.2
145.0																					17.2
150.0																					17.2
155.0																					17.2

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

# STERLING CRANE

## specifications

### Superstructure

#### Boom

38 ft. - 197 ft. (11.7 m - 60 m) seven-section, full power boom with patented TWIN-LOCK™ boom pinning system. Maximum tip height: 207 ft. (63 m).

#### Boom Nose

Seven nylatron sheaves, mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Quick reeve boom nose. Removable auxiliary boom nose with removable pin type rope guard.

#### Boom Elevation

Single lift cylinder with safety valve provides boom angle from -1.5° to +82°.

#### Hydraulically Offsettable Lattice Extension

33 ft. - 56 ft. (10 m - 17 m) bifold lattice swingaway extension **hydraulically offsettable** and luffing under load: 0° - 40°. Controlled from the crane cab. Maximum tip height: 263 ft. (80 m)

#### \* Offsettable Lattice Extension

33 ft. - 56 ft. (10 m - 17 m) bifold lattice swingaway extension manually offset: 0°, 20° or 40°. Maximum tip height: 263 ft. (80 m)

#### Lattice Extension Inserts

One 16 ft. (5 m) insert for use with lattice swingaway extension. Increases extension length to 72 ft. (22 m).

#### Load Moment & Anti-Two Block System

Load moment and anti-two block system with audio/visual warning and control lever lockout provides electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition.

#### Cab

All aluminum construction cab with acoustical lining, tinted safety glass, adjustable operator's seat with suspension, opening windows in side and cab rear, hinged front window with wiper, sunvisor and window shade. Other features include hot water heater, armrest integrated crane controls, and ergonomically arranged instrumentation.

#### Crane Control System

Full electronic control of all crane movements using electrical control levers with automatic reset to zero. Controls are integrated with the LMI and engine management system by CAN-BUS. ECOS system with graphic display.

#### Swing

Two planetary gears with axial piston motors. Infinitely variable to 1.9 rpm. Holding and service brake.

#### Counterweight

59,700 lbs. (27 100 kg) consisting of various sections with hydraulic installation/removal system. Controlled from the superstructure cab.

#### Engine

Mercedes-Benz OM 904 LA diesel, 4 cylinders, water cooled, turbocharged with 148 bhp (110 kW) @ 2200 rpm. Max torque: 428 ft/lb. (580 Nm) at 1200 rpm. Engine emission: EUROMOT/EPA/CARB (non road).

#### Hydraulic System

2 separate circuits, 1 axial piston variable displacement pump (load sensing) with electronic power limiting control and 1 gear pump for swing. Dual thermostatically controlled oil coolers keep oil at optimum operating temperature. Tank capacity: 158 gal. (600 l)

#### Hoist

Main and auxiliary hoists are powered by axial piston motor with planetary gear and brake. "Thumb-thumper" hoist drum rotation indicator alerts operator of hoist movement.

	Main	Auxiliary
Line length:	837 ft. (255 m)	837 ft. (255 m)
Rope diameter:	17 mm	17 mm
Line speed:	394 ft./min. (120 m/min)	394 ft./min. (120 m/min)
Line pull:	12,589 lbs. (56 kN)	12,589 lbs. (56 kN)

#### Electrical System

24V system with three phase alternator, 28V/80A. 2 batteries, 12V/170 Ah.

#### \*Optional Equipment

- \*10.8 ft (3.3 m) 3-sheave integrated heavy duty jib.
  - \*Work light, mounted on top of base section.
  - \*Cab controlled work lights mounted to top of base section.
  - \*Stainless steel exhaust system with spark arrestor in lieu of standard.
  - \*Engine independent diesel cab heater, also serves as engine preheater including 24-hour timer.
  - \*Engine independent propane gas cab heater.
  - \*Stereo/radio CD player.
  - \*Outrigger pad load indicator with readout both in superstructure cab and carrier.
  - \*Air conditioning.
  - \*Working range limiter.
  - \*Boom mounted aircraft warning light.
  - \*Drive and steer control for superstructure.
  - \*EKS5 with graphic display.
- \*Denotes optional equipment

# STERLING CRANE

## specifications

### Carrier

#### Chassis

Box type, torsion resistant frame is fabricated from high strength steel.

#### Outrigger System

Four hydraulic single stage outrigger beams with vertical cylinders and outrigger pads, 23.6" (600 mm) square. Outriggers can be set in 3 positions:

Full	- 24.6' (7.5 m)
Partial	- 22.0' (6.7 m)
	- 19.4' (5.9 m)
	- 16.7' (5.1m)
Retracted	- 8.2' (2.5 m)

Independent horizontal and vertical movement controlled from each side of carrier. Electronic crane level indicators.

#### Engine

Mercedes-Benz OM 502 LA eight cylinder, water cooled, turbo-charged, with 510 bhp (380 kW) @ 1800 rpm. Max. torque 1,770 ft./lb. (2 400 Nm) @ 1200 rpm.

Engine emissions: EUROMOT/EPA/CARB (off road)  
Compression and exhaust brakes.

#### Fuel Tank Capacity

106 gallons (400 L).

#### Transmission

Daimler Chrysler, 16 speed G240-16.

#### Drive/Steer

10X6X10

#### Axles

1st axle line – steer

2nd axle line – steer (additional drive)

3rd axle line – drive/steer (disconnects for highway travel  
10x8x10 drive only)

4th axle line – drive/steer (connects for all wheel steer)

5th axle line – drive/steer

Drive axles with planetary hub reduction and center mounted differential-gearing. Inter-axle and cross axle differential locks.

#### Suspension

Exclusive MEGATRAK suspension. Independent hydro-pneumatic system acting on all wheels with hydraulic lockout. Suspension can be raised 6.5" (170 mm) or lowered 5" (130 mm) both longitudinally and transversely. Features an automatic leveling system for highway travel.

#### Tires

10 tires, 16.00R25

#### Steering

Dual circuit, hydraulic power assisted steering system. Transfer case mounted, ground driven emergency steering pump. Axles 1, 2, 3 and 5 steer on highway. Separate steering of the 4th and 5th axles for all wheel and crab steering, controlled by an electronic rocker switch.

#### Brakes

Service brakes: pneumatic dual circuit acting on all wheels, anti lock prevention.

Parking brake: pneumatically operated spring loaded brake acting on axle lines 2 and 5.

Air dryer.

#### Cab

Two-man construction with the following features: safety glass, driver and passenger seats with suspension, heated rear view mirrors, engine independent diesel cab heater, AC, complete instrumentation and driving controls.

#### Electrical System

24V system with three phase alternator, 28V/100A  
2 batteries, 12V/170 Ah

#### Maximum Speed

53 mph (85 kph)

#### Gradeability (Theoretical)

72% - 14.00 tires  
64% - 16.00/20.5 tires

### Miscellaneous Standard Equipment

Work light; tool kit; fire extinguisher; auxiliary boom nose; radio/CD player in carrier cab, heated rear view mirrors, and cruise control.

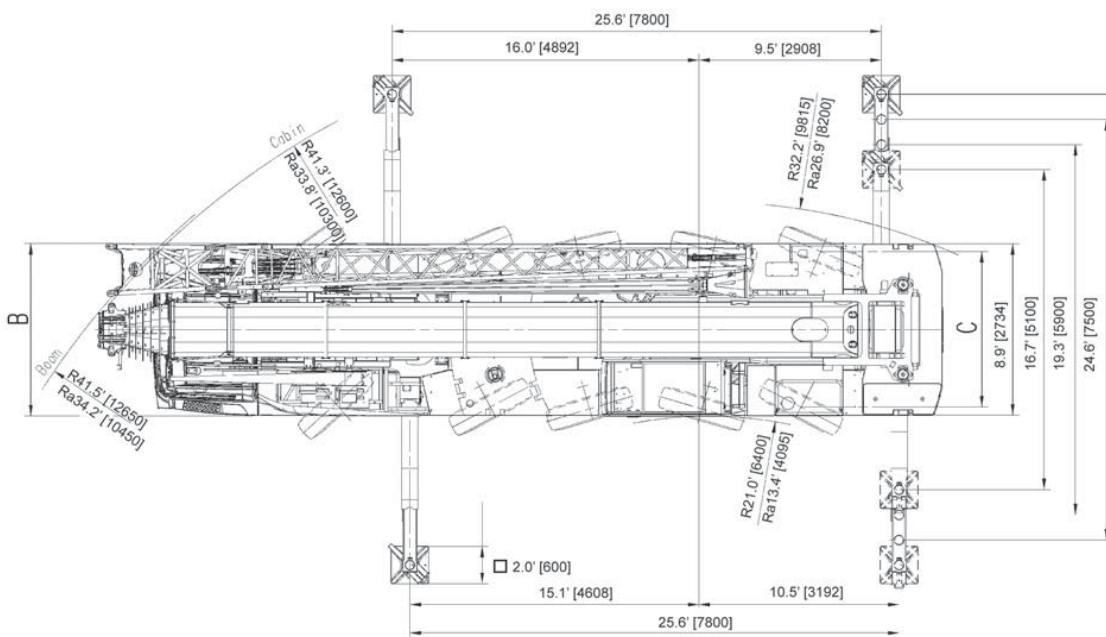
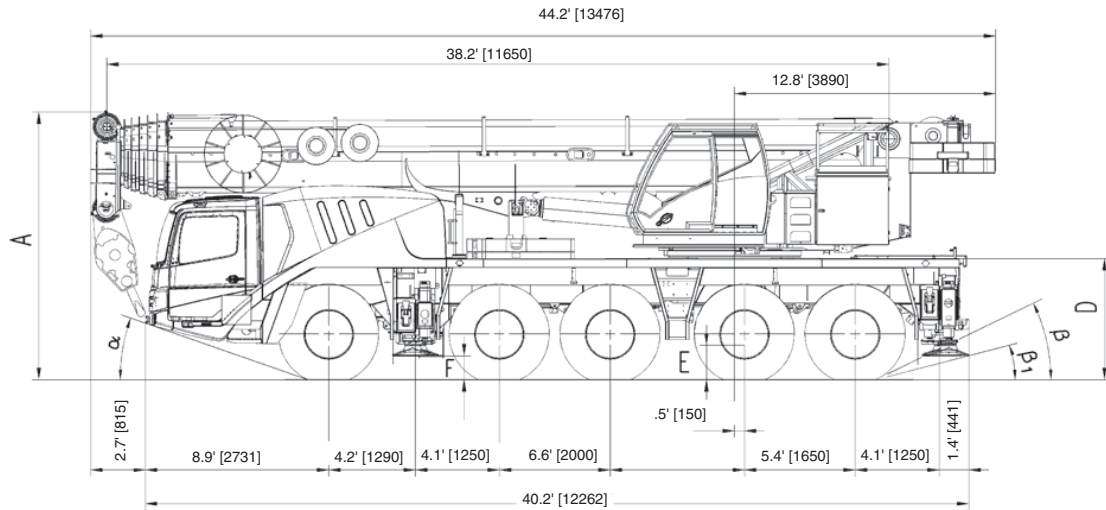
### Optional Equipment


- \*Stainless steel exhaust system with spark arrestor
- \*20.5R25 tires (vehicle width 10.2 ft., 3.1 m)
- \*10X8X10 drive/steer
- \*Electric driveline retarder
- \*Worklights for outriggers
- \*Steel outrigger floats
- \*Spare tire with carry bracket
- \*Outrigger pad load indicator
- \*Hinged bunk bed

\*Denotes optional equipment

# STERLING CRANE

## dimensions



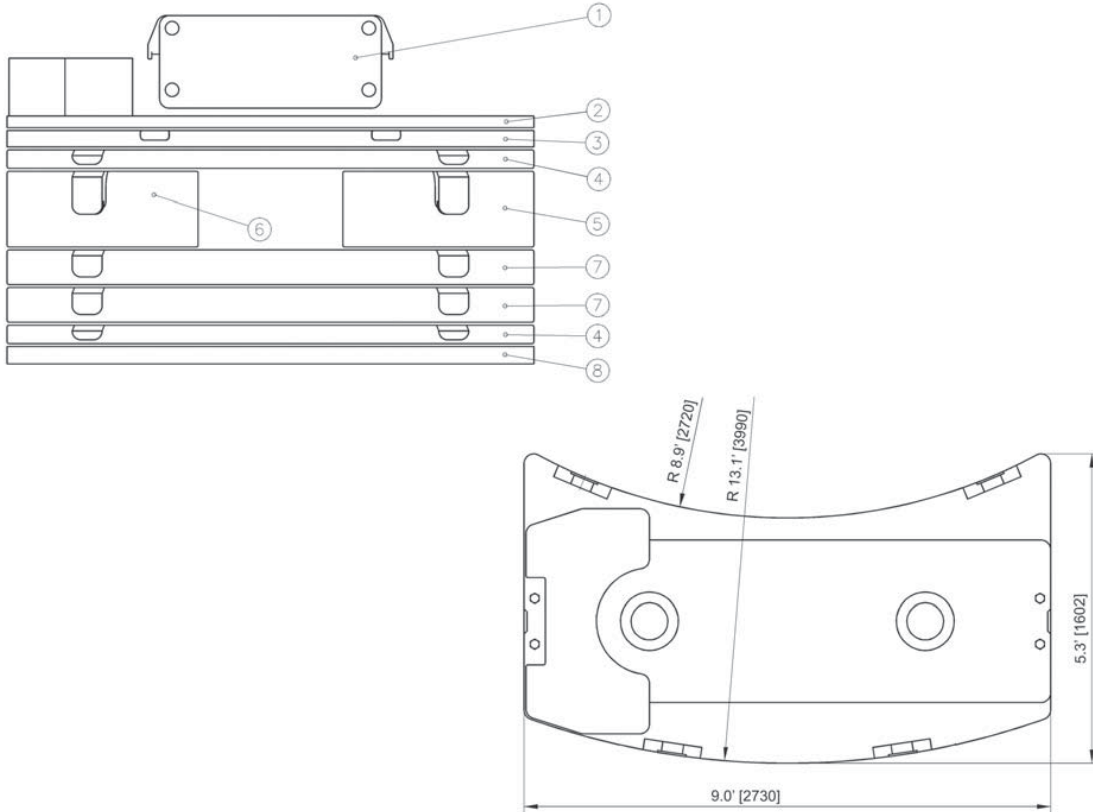
	A	A 5.1 in.* (130 mm)	B	C	D	E	F	α	β	β1
14.00 R25	12.9 (3945)	12.5 (3815)	9.0 (2750)	7.7 (2338)	5.7 (1750)	1.4 (435)	1.2 (356)	18°	23°	17°
16.00 R25	13.1 (3995)	12.7 (3865)	9.8 (3000)	8.2 (2486)	5.9 (1800)	1.6 (485)	1.3 (386)	20°	25°	19°
20.5 R25	13.1 (3995)	12.7 (3865)	9.8 (3000)	8.2 (2507)	5.9 (1800)	1.6 (485)	1.3 (386)	20°	25°	19°

Ra = Radius all wheels steered

\*Lowered

# STERLING CRANE

## counterweight



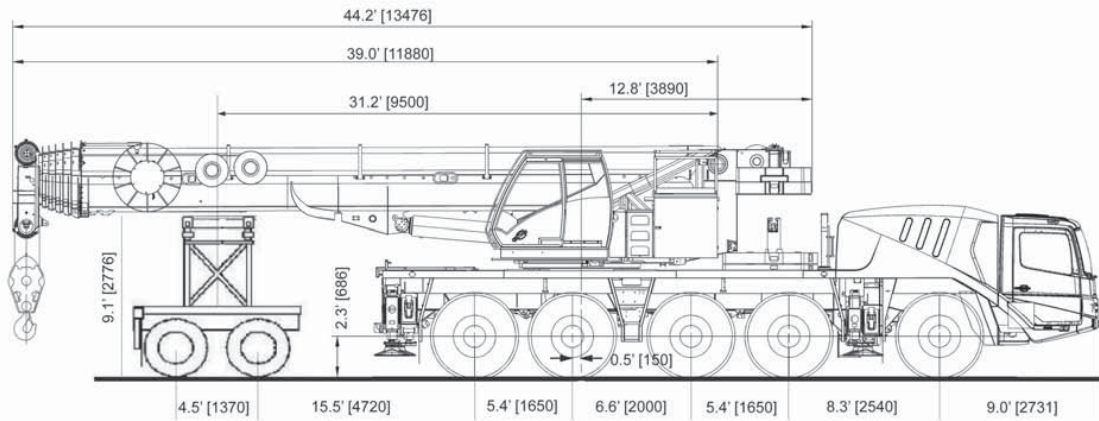
- |  |                                   |
|--|-----------------------------------|
| 1. 1,323 lb.(600 kg.) Bolted (Aux. Hoist or IPO) | 5. 7,275 lb.(3 300 kg.) Stacking  |
| 2. 5,071 lb.(2 300 kg.) Bolted                   | 6. 7,275 lb.(3 300 kg.) Stacking  |
| 3. 4 850 lb.(2 200 kg.) Stacking                 | 7. 9,700 lb (4 400 kg.) Stacking  |
| 4. 4,850 lb.(2 200 kg.) Stacking                 | 8. 4,850 lb (2 200 kg.) Baseplate |

	1	2	3	4	5	6	7	8
Counterweight Configuration lb.(kg.)								
6,400 (2 900)	●	●						
11,250 (5 100)	●	●						●
16,100 (7 300)	●	●	●					●
20,950 (9 500)	●	●					●	●
25,600 (11 700)	●	●	●				●	●
30,650 (13 900)	●	●	●		●	●		●
35,500 (16 100)	●	●	●	●	●	●		●
40,350 (18 300)	●	●	●	2●	●	●		●
45,200 (20 500)	●	●	●	●	●	●	●	●
50,050 (22 700)	●	●	●		●	●	2●	●
54,900 (24 900)	●	●	●	●	●	●	2●	●
59,750 (27 100)	●	●	●	2●	●	●	2●	●

# STERLING CRANE

## weight proposal

### Trailing Boom



Dolly  
26,676 lb.  
(12 000 kg)

Rear 3 Axles  
50,981 lb.  
(23 125 kg)

Front 2 Axles  
38,460 lb.  
(17 446 kg)

### Unit Configuration:

42' – 197' boom  
Outrigger pads stowed on unit  
10 X 8 X 10 drive/steer  
Main and auxiliary hoists with cable

36 – 59 ft. hydraulic luffing swingaway  
Additional oil cooler  
20.5 tires  
2 axle boom dolly (5,710 lb. / 2 590 kg)  
Fixed cover weight (5,070 lb. / 2 300kg)

### Boom Over Front

Basic Weights - lbs (kg)	Axles 1 & 2		Axles 3 - 5		Total	
Mercedes power, 16.00R25 tires, 10x6x10 drive/steer, 2nd oil cooler, outrigger pads, auxiliary hoist, driver and tanks filled	36,381	(16,502)	68,835	(31,223)	105,216	(47,725)
<b>Additions:</b>						
10x8x10 drive/steer						
Electric driveline retarder	-187	(-85)	760	(345)	573	(260)
Spare wheel 14.00 R25 XGC steel rim with stowage	-474	(-215)	1,045	(474)	571	(259)
Spare wheel 16.00 R25 XGC steel rim with stowage	-592	(-268)	1,295	(587)	703	(319)
Spare wheel 20.5 R25 XGC steel rim with stowage	-680	(-309)	1,478	(671)	798	(362)
Brackets for hydraulic swingaway	143	(65)	36	(16)	179	(81)
Hose reel + parts for hydraulic swingaway	604	(274)	-185	(-84)	419	(190)
33 ft. - 56 ft. (10-17m) hydraulic swingaway	2,761	(1,253)	105	(47)	2,866	(1,300)
Auxiliary boom nose	293	(133)	-139	(-63)	154	(70)
4,850 lb. (2200 kg) section 3 pinned to superstructure	-3,514	(-1,594)	8,364	(3,794)	4,850	(2,200)
4,850 lb. (2200 kg) section 8 stowed on carrier	3,271	(1,484)	1,579	(716)	4,850	(2,200)
<b>Substitutions:</b>						
14.00R25 tires	-504	(-228)	-819	(-372)	-1,323	(-600)
20.5R25 tires	361	(164)	587	(266)	948	(430)
<b>Removals:</b>						
Boom assembly	-20,890	(-9,476)	-8,817	(-3,999)	-29,707	(-13,475)
Front outriggers	-3,095	(-1,404)	-13	(-6)	-3,109	(-1,410)
Rear outriggers	2,250	(1,021)	-5,557	(-2,521)	-3,307	(-1,500)
Front and rear outrigger floats	-69	(-32)	-371	(-168)	-441	(-200)